

DEFENSE INFORMATION SYSTEMS AGENCY  
FY 1997 PRESIDENT'S BUDGET ESTIMATES



RESEARCH, DEVELOPMENT, TEST  
AND EVALUATION (RDT&E)  
APPROPRIATION

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DEFENSE INFORMATION SYSTEMS AGENCY (DISA)  
PROGRAM ELEMENT COMPARISON SUMMARY  
INTRODUCTION AND EXPLANATION OF CHANGES

1. General. This document has been prepared to provide summary information on the DISA Research, Development, Test and Evaluation Program to congressional committees during the FY 1997 hearings. The R-2 and R-3 exhibits provide narrative information on all RDT&E Program Elements and projects.
2. Comparison of FY 1995 and 1996 Data. A direct comparison of FY 1995 and FY 1996 data in the R-1 exhibit dated February 1995 will reveal only changes reflecting below threshold reprogrammings and Congressional action on the appropriation request.
3. Relationship of FY 1997 Budget Structure to the FY 1996 Budget Approved by Congress. The FY 1997 budget request reflects two new program elements: 0303129K (Defense Message System) and 0303149K (C4I for the Warrior). Funding for the Defense Message System is a realignment of work which was previously included in 0303126K (Long Haul Communications). Funding included in C4I for the Warrior represents a new effort.
4. Classification. All exhibits in this document are unclassified.

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DEFENSE INFORMATION SYSTEMS AGENCY  
FY 1997 PRESIDENT'S BUDGET ESTIMATE

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

TABLE OF CONTENTS

RDT&E Program Summary, R-1.....	1
C2 Research Center, PE 0305108K.....	2
C3 Interoperability, PE 0208045K.....	5
NMCS-Wide Support, PE 0302016K.....	23
Joint/Defense Info Systems Engineering & Integration, PE 0302019K.....	40
Long-Haul Communications, PE 0303126K.....	65
Support of the National Communications System (NCS), PE 0303127K.....	95
Defense Message System (DMS), PE 0303129K.....	109
Minimum Essential Emergency Communications Network (MEECN), PE 0303131K.....	112
C4I For the Warrior, PE 0303149K.....	119
Joint Spectrum Center, PE 0303153K.....	122

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DEFENSE INFORMATION SYSTEMS AGENCY  
FY 1997 PRESIDENT'S BUDGET ESTIMATES

R-1 EXHIBIT

<u>Program Element</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
0305108K C2 Research	1,640	1,819	1,856
Total Applied Research (BA 2)	1,640	1,819	1,856
0604889K Counterdrug Engineering	500	0	0
Total Engineering & Manufac. Dev. (BA 5)	500	0	0
0208045K C3 Interoperability	32,451	23,192	24,268
0302016K NMCS-Wide Support	3,536	1,995	2,047
0302019K Joint/Def. Info. Sys. Engin. & Integ.	9,774	3,745	4,594
0303126K Long Haul Communications	27,166	20,060	23,361
0303127K Support of the Nat. Comm. Sys. (NCS)	4,229	3,733	3,910
0303129K Defense Message System (DMS)	0	0	2,532
0303131K Min. Essen. Emerg. Comm. Netw. (MEECN)	3,237	2,620	2,311
0303149K C4I for the Warrior	0	0	2,907
0303153K Joint Spectrum Center	0	4,712	0
Total Operational Systems Develop. (BA 7)	80,393	60,057	65,930
<b>TOTAL DISA RDT&amp;E</b>	<b>82,533</b>	<b>61,876</b>	<b>67,786</b>
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## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				DATE: March 1996	
RDT&E, Defense Wide/02							C2 Research/P.E. 0305108K					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	Contg	Contg
Total 0305108K Cost		1.640	1.819	1.856	1.944	2.024	2.087	2.153				
Project A: Command and Control Research, A10		1.640	1.819	1.856	1.944	2.024	2.087	2.153				
A. Mission Description and Budget Item Justification:							This program element represents DISA's portion of a joint DISA/multi-service effort that supports research into emerging technologies, methodologies and theories of military command and control (C2), the application of research results to resolve the problems of C2 associated with joint operations and to foster optimal use of MILDEP laboratory resources. Accordingly, this program element is located in Budget Activity 02. The C2 research program was initiated to develop C2 as a scientific discipline, foster joint service techbase cooperation and demonstrations, and develop a C2 curriculum for DOD.					
The project supports command and control basic research and Applied Research. The project consists of research and studies for high level issues in command and control, and the development of curricula for National Defense University, Naval Post Graduate School, and the Service war colleges. It addresses joint techbase issues including joint distributed ADP, Joint War Gaming and technology sharing.												
FY1995 Accomplishments							o Continued coordinating and managing the Joint Service C3 Science and Technology Programs, developing annual Joint Service Program Plan for C3 Research and supporting the development and execution of the Deputy Director of Research and Engineering (DDR&E) Enhanced Advanced Technology Demonstrations (EATDs) (\$250K) (AUG 95)					
							o Continued development and demonstration of Distributed Computing Environment (DCE) capabilities in data bases, Multi-Level Security, data fusion, and address these issues in the Global Grid DCE. (\$595K) (SEP 95)					
							o Continued C3, Decision Aids and Data Fusion Symposia and the information exchange through the TPC3 subpanels. Continue to explore the possibility of formally expanding into the international arena by forming a C2 Research Group in the Technical Cooperative Program (TCP) or an international Symposium. (\$300K) (JUNE 95)					
							o Continued basic and applied research in C2 architecture's theory and analysis tools. Continue basic and applied research in Conditional Event Probability Algebraic Logic and its application to the C2 process. (\$245K) (SEP 95)					
							o Continued curricula for National Defense University and other DOD schools and analysis and studies of high level C3 issues (\$250K) (SEP 95)					
							\$1.640M Total					

Page 1 of 3

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDTE, Defense Wide/02				C2 Research/P.E. 0305108K					
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Total 0305108K Cost	1.640	1.819	1.856	1.944	2.024	2.087	2.153	Contg	Contg
Project A: Command and Control Research, A10	1.640	1.819	1.856	1.944	2.024	2.087	2.153	Contg	Contg

**FY1996 Plans:**

- o Continue coordinating and managing the Joint Service C3 Science and Technology Programs, developing annual Joint Service Plan for C3 Research . Support the development and execution of the Deputy Director of Research and Engineering (DDR&E) Advanced Concepts Technology Demonstrations (ACTDs) using the Joint Warfare Information Demonstrations (JWID). (\$202K) (AUG 96)
- o Continue development and demonstration within the Global Grid testbed environment of Multi-level Security and data fusion. (\$275K) (SEP 96)
- o Continue C3, Decision Aids and Data Fusion Symposia and the information exchange through TPC3 subpanels. Formalize the expansion into the international arena. (\$453K) (SEP 96)
- o Continue basic and applied research in C2 architecture's theory and analysis tools. Continue basic research in Conditional Event Probability Algebraic Logic (CEPAL) and its application to the C3 process (\$567K) (SEP 96)
- o Continue C2 curricula for National Defense University and other DOD schools and analysis and studies of high level C3 issues. (\$322K) (SEP 96)

**\$1.819M Total**

**FY1997 Plans:**

- o Continue coordinating and managing the Joint Service C3 Science and Technology Programs, developing annual Joint Service Plan for C3 Research. Support the development and execution of the Deputy Director of Research and Engineering (DDR&E) Advanced Concepts Technology Demonstrations (ACTDs) using the Joint Warfare Information Demonstrations (JWID). (\$100K) (AUG 97)
- o Continue demonstration within the Global Grid testbed environment of DCE capabilities in Multi-Media, distributed data bases, Multi-level Security and data fusion. Incorporate research into JWID arena for demonstration. (\$141K) (SEP 97)
- o Continue C3, Decision Aids and Data Fusion Symposia and the information exchange through the TPC3 subpanels. Formalize the expansion into the international arena. Hold first international C3 Symposia in Europe. (\$355K) (JUNE 97)
- o Continue basic and applied research in C2 architecture's theory and analysis tools. Continue basic research in Conditional Event Probability Algebraic Logic and its application to the C3 process. (\$510K) (SEP 97)
- o Continue C2 curricula for National Defense University and other DOD schools analysis and studies of high level C3 issues (\$750K) (SEP 97)

**\$1.856M Total**

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/02				C2 Research/P.E. 0305108K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project A: Command and Control Research, A10		1.640	1.819	1.856	1.944	2.024	2.087	2.153	Contig	Contig
B. Program Change Summary										
Previous President's Budget (FY 1996)										
Appropriated Value										
Adjustments to Appropriated Value										
Adjustments to Budget Year Since FY 1996 President's Budget										
Current Budget Submit/President's Budget										
Change, Summary Explanation:										
Funding:										
FY95 reduction due to Congressional rescission.										
FY96 reduction due to undistributed Congressional adjustment.										
FY96 reduction due to revised inflation guidance.										
Schedule: N/A										
Technical: N/A										
C. Other Program Funding Summary N/A										
D. Schedule Profile										
(U) FY 1995 Contract/study delivered 3rd quarter FY95										
(U) FY 1996 Contract/study delivered 2nd quarter FY96										
(U) FY 1997 Contract/study delivered 3rd quarter FY97										

Page 3 of 3

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DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

COST (in millions)	R-1 ITEM NOMENCLATURE						Total Cost	
	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
PE: 0208045K	32.451	23.192	24.268	25.313	26.297	27.885	29.547	Contig
T20 Center for Standards	2.943	2.185	1.582	1.639	1.687	1.851	2.001	Contig
T80 Technology Assessment and Insertion	0*	.571	.563	.584	.601	.658	.712	Contig
T30 Test and Evaluation	20.679	13.080	14.449	15.081	15.665	16.516	17.466	Contig
T40 Major Range and Test Facility Base (MRTFB)	8.829	7.356	7.674	8.009	8.344	8.860	9.368	Contig

## A. Mission Description &amp; Budget Item Justification.

To ensure interoperability and integration of Command, Control, Communications and Intelligence (C3I) systems through development and maintenance of a joint global architecture, interface and system standards, interface definitions, operational procedures and a test and certification program for C3 systems; and to function as an Operational Test Agency (OTA) to test/certify the Defense Information Systems Network (DISN), Defense Message System (DMS), and other strategic systems. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\*This project is not a new start but has evolved from an existing effort in Project T30, Test and Evaluation.

Page 1 of 18

UNCLASSIFIED

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				C3 Interoperability 0208045K/Center for Standards/T20					
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T20 Center for Standards	2.943	2.185	1.582	1.639	1.687	1.851	2.001	Contig	Contig

A. Mission Description & Budget Item Justification: The Center serves as DOD Executive Agent for centralized management of Information Technology standards. The primary goal is to guide development of standards within DOD and encourage industry adoption of standards supporting DOD requirements. When commercially available standards exist, they will be adopted. The Center will manage development of DOD unique requirement efforts. The Center will also select candidate technologies for advanced technology demonstrations, and develop the roadmap and business case analyses for transitioning technologies into leading edge services.

(U) FY 1995 Plans:

- o Maintain and expand IT Standards Framework, establish a repository of certified DOD IT standards profiles, provide direct standards profile selection support for DOD systems; (Ongoing; \$890K).
- o Review Joint Pub 6-05, Manual for Employing Joint Tactical Communications to incorporate Joint Task Force (JTF) requirements; (Ongoing; \$275K).
- o Approve MIL-STD-198-700A, Interoperability and Performance Standards for the Defense Information System; (Nov 94; \$67K).
- o Complete MIL-STD-188-221, Tactical Radio Data Link Waveform Standard; (Sep 95; \$186K).
- o Publish MIL-STD-188-136, MIL-STD-700B, Interoperability and Performance Standards for the Defense Information System; (Jun 95; \$135K).
- o Provide technical support to Principal US Representative to NATO Subgroups, SG/9, SG/11 and SG/6; (Ongoing; \$327K).
- o Validate Ultra High Frequency (UHF) satellite standards; (Jun 95; \$353K).
- o Revise MIL-STD-187-700, Interoperability and Performance Standards for the Defense Information Systems, to stay abreast with technological advancements; (Sep 95; \$120K).
- o Complete draft MIL-STD-188-331A on multipoint VTC systems and submit for testing; (Dec 94; \$110K).
- o Revise MIL-STD-188-194, Integrated Services Digital Network (ISDN) Profile; (Ongoing; \$128K).
- o Complete development of EHF Medium Data Rate (MDR) Standard, MIL-STD-188-136; (Mar 95; \$352K).
- o \$2.943M Total

Page 2 of 18

UNCLASSIFIED

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

R-1 ITEM NOMENCLATURE				
C3 Interoperability 0208045K/Center for Standards/T20				
COST (in millions)	FY95	FY96	FY97	FY98
T20 Center for Standards	2.943	2.185	1.582	1.639

## A. Mission Description &amp; Budget Item Justification: (Continued)

## (U) FY 1996 Plans:

- o Develop standards profile to support procurement of Defense Information Systems Network; (Sep 96; \$146K).
  - o Approve MIL-STD-187-700B, which provides for selected standards to evolve the future Defense Information System; (Sep 96; \$52K).
  - o Complete and approve Standard for Asynchronous Transfer Mode (ATM) on Network Node Interface (NNI) (Jun 96) and commence update of standard on ATM User Network Interface; (Jul 96; \$32K).
  - o Complete development of Trusted Networking Security Standards; (Sep 96; \$100K).
  - o Tailor Personal Communications Standards (PCS) to meet DOD needs; (Sep 96; \$100K).
  - o Complete development of Draft ATM over a Tactical Network Standard; (Aug 96; \$125K).
  - o Complete development of Data Communications Standards incorporating INTERNET Protocols; (Sep 96; \$100K).
  - o Complete development of Standards to support the use of Commercial SATCOM; (Sep 96; \$75).
  - o Revise and distribute parts of Joint Pub 6-05; (Ongoing; \$150K).
  - o Technical Standards support on Joint and Electronic Key Management Systems; (Ongoing; \$85K).
  - o Validation and approval of Electronic Data Interchange (EDI), and DODISS Compartmented Work Station Security Standards; (Ongoing; \$100K).
  - o Validation and approval of initial Tactical Messaging Standards and initial Thin Stack Standards; (Ongoing; \$150K).
  - o Maintain and expand IT Standards Framework, establish a repository of certified DOD IT standards profiles, provide direct standards profile selection support for DOD system; (Ongoing; \$285K).
  - o Design and develop advanced UHF SATCOM Modulation (AUSM); (Ongoing; \$665K).
- (U) FY 1997 Plans:
- o Commence update of MIL-STD-187-700C for the Defense Information System; (Jun 97; \$100K).
  - o Technical Standards support on Joint and Electronic Key Management Systems; (Ongoing; \$85K).
  - o Exploration into User/System Developer Standards Requirements; (Ongoing; \$186K).
  - o Develop Multicasting Lower Layer 3 Routing Standards; (Ongoing; \$112K).
  - o Enhance Lower Layer 4 Multicasting Standards; (Ongoing; \$105K).
  - o Revise and distribute parts of Joint Pub 6-05; (Ongoing; \$240K).
  - o Complete development of ITU X.400 Key Protocol Standards; (Ongoing; \$74K).

DATE: March 1996

Page 3 of 18

UNCLASSIFIED

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

## APPROPRIATION/BUDGET ACTIVITY

RDT&E, Defense Wide/07		R-1 ITEM NOMENCLATURE								
		C3 Interoperability 0208045K/Center for Standards/T20								
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T20 Center for Standards	2.943	2.185	1.582	1.639	1.687	1.851	2.001	Contig	Contig	Contig

## A. Mission Description &amp; Budget Item Justification: (Continued)

## (U) FY 1997 Plans:

- o Validation and approval of Tactical Messaging Standards and initial Thin Stack Standards; (Ongoing; \$110K).
  - o Validation and approval of Tactical Directory Standard; (Ongoing; \$90K).
  - o Maintain and expand IT Standards Framework, establish a repository of certified DOD IT standards profiles, provide direct standards profile selection support for DOD system; (Ongoing; \$480K).
- \$1.582M Total

## B. Program Change Summary

	FY95	FY96	FY97
Previous President's Budget (FY 1996)	2.943	2.943	1.759
Appropriated Value	2.943	0	1.759
Adjustments to Appropriated Value			.426
Adjustments to Budget Year Since FY 1996 President's Budget			-.072
Current Budget Submit/President's Budget	2.943		2.185
Change Summary Explanation:			

Funding: FY96 increase is due to below threshold reprogramming.

FY97 reduction is due to revised inflation rates.

Schedule: N/A  
Technical: N/A

## C. Other Program Funding Summary

O&M	FY95 10.389	FY96 10.988	FY97 10.031	Total Cost Contig

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07			C3 Interoperability 0208045K/Center for Standards/T20									
COST (in millions)				FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T20 Center for Standards				2.943	2.185	1.582	1.639	1.687	1.851	2.001	Contig	Contig
D. Schedule Profile												
(U) <u>FY 1995</u>												
o 1st Quarter - MIL-STD-188-164/165 (SHF)												
o 1st Quarter - ATM Standard												
o 2nd Quarter - MIL-STD-188-331A (Draft VTC Multipoint)												
(U) <u>FY 1996</u>												
o 3rd Quarter - EC/EDI Standard												
o 4th Quarter - MIL-STD-188-220 (Revised Combat Net Radio Standard)												
o 4th Quarter - DISN Profile												
(U) <u>FY 1997</u>												
o 1st Quarter - UHF SATCOM 5KHZ DAMA Waveform Standard (Voice)												
o 2nd Quarter - ATM Standard (UNI-B)												
o 4th Quarter - Multicast												

Page 5 of 18

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07						C3 Interoperability 0208045K/Center for Standards/T20	
						<u>FY95</u>	<u>FY97</u>
A. Project Cost Breakdown						2,943	1,582
Systems Engineering						<u>FY96</u>	<u>FY96</u>
						2,185	2,185
B. Budget Acquisition History and Planning Information							
Contractor or Government Performing Activity Program	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to <u>FY95</u>	Budget <u>FY95</u>	Budget <u>FY97</u>
LOGICON	C/CPFF	08/91	12,490	12,490	2,209	2,131	1,250
All Other Contracts					812	812	332
				Subtotal Contracts	3,021	2,943	2,185
							1,582
In House Engineering & Technical Support: N/A							
TOTAL PROJECT						3,021	2,943
							2,185
							1,582

Page 6 of 18

R-1 Shopping List  
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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>		<b>DATE:</b> March 1996								
<b>APPROPRIATION/BUDGET ACTIVITY</b>										
RDT&E, Defense Wide/07										
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T80 Technology Assessment and Insertion	0*	.571	.563	.584	.601	.658	.712	Contig	Contig	Contig
A. <u>Mission Description &amp; Budget Item Justification.</u> * This project is not a new start but has evolved from an existing effort within Project T30, Test and Evaluation. This project continues to plan and promote an expeditious and cost effective development of needed information technology capabilities by targeting R&D efforts to DOD mission needs and leveraging on DOD and industry developments. It provides for the transition of new technologies into leading edge and core information services.										
(U) <u>FY 1995</u> Plans: Effort previously in Project T30.										
(U) <u>FY 1996</u> Plans:										
o Engineering for Network Engineering Assessment Facility (NEAF); (Ongoing; \$185K);										
o Engineering for ATM systems for Non-Secure Internet Protocol Router Network (NIPRNET) and Global Combat Support Systems (GCSS); (Ongoing; \$386K);										
\$ .571M Total										
(U) <u>FY 1997</u> Plans:										
o Engineering for Network Engineering Assessment Facility (NEAF); (Ongoing; \$200K);										
o Engineering for ATM systems for NIPRNET and GCSS; (Ongoing; \$363K);										
\$ .563M Total										

Page 7 of 18

UNCLASSIFIED

11

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/07							R-1 ITEM NOMENCLATURE C3 Interoperability 0208045K/Technology Assessment and Insertion/T80			
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T80 Technology Assessment and Insertion		0*	.571	.563	.584	.601	.658	.712	Contg	Contg
B. Program Change Summary										
Previous President's Budget (FY 1996)	0									
Appropriated Value	0									
Adjustments to Appropriated Value	0									
Adjustments to Budget Year Since FY 1996 President's Budget	0									
Current Budget Submit/President's Budget	0									
C. Change Summary Explanation: FY96 decrease is due to congressional adjustment to Defense Wide Appropriations & below threshold reprogrammings. FY97 adjustments are due to revised inflation rates.										
D. Schedule: N/A Technical: N/A										
E. Other Program Funding Summary: N/A										
F. Schedule Profile										
(U) FY 1995: Incorporated into Project T30.										
(U) FY 1996										
o 1st Quarter - 4th Quarter-										
o Engineering for Network Engineering Assessment Facility (NEAF)										
o Engineering for ATM systems for NIPRNET and GCSS										
(U) FY 1997										
o 1st Quarter - 4th Quarter-										
o Engineering for Network Engineering Assessment Facility (NEAF)										
o Engineering for ATM systems for NIPRNET and GCSS										

Page 8 of 18

UNCLASSIFIED

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/07				C3 Interoperability 0208045K/Technology Assessment and Insertion/T80						
Contract or Government Performing Activity Program	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget To Complete		
All Other Contracts				0	0	571	563	Contig		
Subtotal Contracts				0	0	571	563			
In House Engineering & Technical Support: N/A										
TOTAL PROJECT							0	563		

Page 9 of 18

13

R-1 Shopping List  
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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				DATE: March 1996	
RDT&E, Defense Wide/07			C3 Interoperability 0208045K/Test and Evaluation/T30									
COST (in millions)			FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	
T30 Test and Evaluation		20.679	13.080	14.449	15.081	15.665	16.516	17.466	Contg	Contg	Contg	
A. Mission Description & Budget Item Justification: Through effective life cycle test and evaluation (T&E), this project ensures that C3I and information systems (IS) developed by DOD Components are interoperable and permit flexible employment of forces throughout the world. T&E is performed throughout the entire life cycle including proof-of-concept, system development, system deployment, and system upgrade and modification. This T&E includes interoperability, performance, operational test and evaluation, systems effectiveness and force effectiveness testing of all C3I and IS system standards and system interfaces used in joint and combined operations.												
(U) FY 1995 Plans:												
o Develop Independent Evaluation Reports (IER) for Phase I DISN testing; perform independent evaluation of DMS X-400 project; and conduct operational evaluation of DISN Integrated Network Management System (INMS), GCCS, and other DISA oversight programs; (Sep 95, \$1835K).												
o Continue to support CINC exercises; (Sep 95, \$920K).												
o Continue to perform interoperability and technical testing and demonstrations of the following system interfaces and standards; DSN, AN/USC-42 (Mini-DAMA), Ultrahigh Frequency Satellite Terminal System, Joint Advanced Special Operations Radio System (JASORS), DISN, ITSDN, JTIDS, Global Grid, Asynchronous Transfer Mode (ATM), JWIDS, and multiple US command and control systems employing TADILS AB/C/J, ATDL-1, USMTF and Variable Message Format standards; (Sep 95, \$6249K).												
o In conjunction with DISA's new mission to support testing and associated training activities of the Navy Computer and Telecommunications Command, support the following programs: Beta and OT&E of Navy unique and DMS joint projects, Naval Communications Processing and Routing System (NAVCOMPARS), Naval Communications Processing and Routing Follow-on System (NAVCOMPARS II), Navy Message Switching System (NMSS), Multilevel Mail Server (MSS), Message Distribution Terminal (MDT); (Ongoing, \$5645K).												
o Continue to document C3 equipment strings; perform major switch tests (Sep 95, \$1141K).												
o Test/evaluate/verify information transfer systems related to GCCS; ensure that GCCS provides quality command and control capability to the warfighter CINCs via timely and cost effective migration; (Sep 95, \$309K).												
o Develop next version of the Leading Edge Services Plan to include technology areas such as distributed computing, generic workstations, high speed interfaces and update existing technology areas; (Ongoing, \$450K).												
o Harmonize and integrate Global Grid and Joint Director's Laboratory efforts with new version of Leading Edge Services Plan; (Ongoing, \$300K).												
o Provide the planning for advanced technology demonstrations and play the principal role in evaluating their capabilities for providing leading edge services to DOD customers; (Ongoing, \$100K).												
o Lead technical support to DOD wide technology insertion working groups; (Ongoing, \$75K).												
o Lead technical support to DISA technology working groups; (Ongoing, \$75K).												
o Continue to provide other CINC support; (Ongoing, \$3,580K).												
\$20.679M Total												

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				C3 Interoperability 0208045K/Test and Evaluation/T30					
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T30 Test and Evaluation	20.679	13.080	14.449	15.081	15.665	16.516	17.466	Contig	Contig

A. Mission Description & Budget Item Justification: (Continued)

(U) FY 1996 Plans:

- o Provide independent operational evaluation and assessments of Defense Information Infrastructure (DII) programs, i.e., Defense Message System (DMS), Defense Information Systems Network (DISN), Global Command and Control System (GCCS) and Survivable Secure Communications Network (SSCN). (Sep 96, \$1446K).
- o Provide C4INC interoperability testing and technical assistance; publish Lessons Learned Report sharing C4IN problems, issues and solutions; (Ongoing, \$649K).
- o Perform interoperability and technical testing for the following C4IFTW system interfaces and standards; Defense Information Systems Network, Defense Message System, AN/USC-42 (MIN-DAMA), Military Strategic and Tactical Relay (MILSTAR) Satellite Program, Ultrahigh Frequency Satellite Terminal System, Global Grid, Asynchronous Transfer Mode (ATM), and multiple US command and control systems employing TADILS A/B/C/I, ATDL-1, USMTC and VMF standards (Ongoing, \$4839K).
- o Provide technical and operational fixes to interface and interoperability problems in a coordinated environment involving both the user and the developer/commercial vendor; provide the Commander in Chief/Joint Task Force planner operational guidance in the planning, establishment and employment of tactical multi-Service systems and the integration of these systems into the Strategic, Network and Defense Information Infrastructure. Document critical C3 equipment strings (Sep 96, \$800K).
- o In conjunction with the Defense Information Systems Agency's mission to provide testing and associated training and implementation support for the Navy Computer and Telecommunications Command support the following automated information systems and programs: BETA and interoperability Test and Evaluation of Navy unique and Defense Message System joint projects, Multilevel Mail Server (MMS), Message Distribution Terminal (MDT), Emergency Shore and Fleet Support. Types of testing include hardware acceptance testing (HAT), quality acceptance testing (QAT), interface/interoperability certification testing (ICT), software change proposal testing (SCP), security test and evaluation (ST&E) and DMS functional testing; (Ongoing, \$4503K).
- o Test/evaluate/certify information transfer systems related to GCCS; ensure that GCCS provides quality command and control capability to the warfighter CINCs via timely and cost effective migration; (Sep 96, \$843).
- o \$13.080M Total

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				C3 Interoperability 0208045K/Test and Evaluation/T30					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
T30 Test and Evaluation		20.679	13.080	14.449	15.081	15.665	16.516	17.466	Contig

A. Mission Description & Budget Item Justification: (Continued)

(U) FY 1997 Plans

- o Evaluate systems operational effectiveness and suitability for fielding for the following Defense Information Systems Agency oversight programs: Defense Message System, Global Command and Control System, and Defense Information Systems Network; (Sep 97, \$1570K).
- o Provide interoperability testing and technical assistance; publish Lessons Learned Report sharing C4I problems, issues and solutions; (Ongoing, \$584K).
- o Perform interoperability and technical testing for the following C4IFTW system interfaces and standards: Defense Information Systems Network (DISN), AN-USC-42 (Mini- DAMA), Military Strategic and Tactical Relay (MILSTAR) Satellite Program, Ultrahigh Frequency Satellite Terminal System, Global Grid, Asynchronous Transfer Mode (ATM), and multiple US command and control systems employing TADILS A/B/C/J, A/TDL-1, USMTF and VMF standards; (Ongoing, \$5651K).
- o Provide technical and operational fixes to interface and interoperability problems in a coordinated environment involving both the user and the developer/commercial vendor; provide the Commander in Chief Joint Task Force planner operational guidance in the planning, establishment and employment of tactical multi-Service systems and the integration of these systems into the Strategic Network and Defense Information Infrastructure. Document critical C3 equipment strings; (Sep 97, \$778K).
- o In conjunction with the Defense Information Systems Agency's mission to provide testing and associated training and implementation support for the Navy Computer and Telecommunications Command, support the following automated information systems and programs: BETA and interoperability Test and Evaluation of Navy unique and Defense Message System joint projects, Multilevel Mail Server (MMS), Message Distribution Terminal (MDT), Emergency Shore and Fleet Support. Types of testing include hardware acceptance testing (HAT), quality acceptance testing (QA), interface/interoperability certification testing (ICT), software change proposal testing (SCP), security test and evaluation (ST&E) and DMS functional testing; (Ongoing, \$4943K).
- o Test/evaluate/certify information transfer systems related to GCCS; ensure that GCCS provides quality command and control capability to the warfighter CINCs via timely and cost effective migration; (Sep 97, \$773K).
- o Assesses CINCs intelligence systems interoperability initiatives; (Sep 97, \$150K).

\$14.449M Total

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## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

### APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

COST (in millions)	FY95	FY96	FY97	R-1 ITEM NOMENCLATURE			
				C3 Interoperability 0208045K/Test and Evaluation/T30			
T30 Test and Evaluation	20.679	13.080	14.449	15.081	15.665	16.516	17.466

### B. Program Change Summary

	FY95	FY96	FY97	
Previous President's Budget (FY 1996)	20.514	14.677	14.413	
Appropriated Value	20.514	14.677		
Adjustments to Appropriated Value	.165	-1.597		
Adjustments to Budget Year Since FY 1996 President's Budget				.036
Current Budget Submit/President's Budget	20.679	13.080		
Change Summary Explanation:				14.449

### Funding:

FY95 adjustment is the result of below threshold reprogramming.  
 FY96 adjustment is due to congressional adjustments to Defense Wide Appropriations and below threshold reprogramming.  
 FY97 adjustment is due to revised fiscal guidance and realignment of funds.

Schedule: N/A

Technical: N/A

### C. Other Program Funding Summary: N/A

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
				C3 Interoperability 0208045K/Test and Evaluation/T30						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
T30 Test and Evaluation		20.679	13.080	14.449	15.081	15.665	16.516	17.466	Contig	Contig

D. Schedule Profile:

(U) FY 1995

- o 2nd Quarter - IER for Phase I DISN testing; DMS X.400 project; OT&E of DISN INMS, GCCS and others. In conjunction with DISA's mission to support testing and associated training activities of the Navy Computer and Telecommunications Command, support the following programs: BETA and OT&E of Navy unique and DMS joint projects, Multilevel Mail Server (MMS), Message Distribution Terminal (MDT).
- o 4th Quarter - Interoperability and technical testing for the following: GCCS, DSN, AN/USC-42 (Mini-DAMA), Ultrahigh Frequency Satellite Terminal System, JASORS, DISN, ITSDN, JTIDS, Global Grid, Asynchronous Transfer Mode (ATM), and multiple US command and control systems employing TADILS A/B/C/J, ATDL-1, USMTF and VHF standards. C4IFTW STDN/JWID demonstrations and assessments.

(U) FY 1996

- o 2nd Quarter - IER for Phase I DISN testing; DMS X.400 project; OT&E of DISN INMS, GCCS and others. In conjunction with DISA's mission to support testing and associated training activities of the Navy Computer and Telecommunications Command, support the following programs: BETA and OT&E of Navy unique and DMS joint projects, Multilevel Mail Server (MMS), Message Distribution Terminal (MDT).
- o 4th Quarter - Interoperability and technical testing for the following: GCCS, AN/USC-42 (Mini-DAMA), Ultrahigh Frequency Satellite Terminal System, DISN, Global Grid, Asynchronous Transfer Mode (ATM), and multiple US command and control systems employing TADILS A/B/C/J, ATDL-1, USMTF and VHF standards.

(U) FY 1997

- o 2nd Quarter - DMS X.400 project; OT&E of DISN INMS, GCCS and others. In conjunction with DISA's mission to support testing and associated training activities of the Navy Computer and Telecommunications Command, support the following programs: BETA and OT&E of Navy unique and DMS joint projects, Multilevel Mail Server, (MMS), Message Distribution Terminal (MDT).
- o 4th Quarter - Interoperability and technical testing for the following: GCCS, AN/USC-42 (Mini-DAMA), Ultrahigh Frequency Satellite Terminal System, DISN, Global Grid, Asynchronous Transfer Mode (ATM), and multiple US command and control systems employing TADILS A/B/C/J, ATDL-1, USMTF and VHF standards.

UNCLASSIFIED

DATE: March 1996

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

## **APPROPRIATION/BUDGET ACTIVITY**

RDT&E, Defense Wide/07

Current OMNITELUS contracts will expire in FY 20 and new contracts will be awarded in FY 21.

Page 15 of 18

**R-1 Shopping List**  
**UNCLASSIFIED**

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

## APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

COST (in millions)	R-1 ITEM NOMENCLATURE					Total Cost			
	FY95	FY96	FY97	FY98	FY99				
T40 Major Range and Test Facility Base (MRTFB)	8.829	7.356	7.674	8.009	8.344	8.860	9.368	Contig	Contig

**A. Mission Description & Budget Item Justification:** This project provides resources to operate DISA's Joint Interoperability Test Command (JITC) which is a member of DOD's Major Range and Test Facility Base (MRTFB). Indirect operation/maintenance expenses, overall testbed improvement and modernization, and facility and logistics support are included in this project.

## (U) FY 1995 Accomplishments:

- o Develop automated systems to facilitate test and evaluation and **maximize use of test assets**; develop and enhance Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission; (Ongoing, \$2206K).
- o Maintain and operate the JITC test facilities at Fort Huachuca, AZ; VA and the newly incorporated Cheltenham, MD for DOD use; (Ongoing, \$6623K).

## (U) FY 1996 Plans:

- o Develop automated systems to facilitate test and evaluation and **maximize use of test assets**; develop and enhance Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission; (Ongoing, \$1576K).
- o Maintain and operate the JITC test facilities at Fort Huachuca, AZ; VA and Cheltenham, MD for DOD use; (Ongoing, \$5780K).

## (U) FY 1997 Plans:

- o Develop automated systems to facilitate test and evaluation and **maximize use of test assets**; develop and enhance Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission; (Ongoing, \$1921K).
- o Maintain and operate the JITC test facilities at Fort Huachuca, AZ; VA and Cheltenham, MD for DOD use; (Ongoing, \$5753K).

\$7.356M Total

\$7.674M Total

Page 16 of 18

UNCLASSIFIED

20

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07				C3 Interoperability 0208045K/Major Range and Test Facility Base (MRTFB)								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete			
T40 Major Range and Test Facility Base (MRTFB)		8.829	7.356	7.674	8.009	8.344	8.860	9.368	Contig			
									Total Cost			

B. Program Change Summary

	FY95	FY96	FY97
Previous President's Budget (FY 1996)	8.829	7.948	7.805
Appropriated Value	8.829	7.948	
Adjustments to Appropriated Value	0	-.592	
Adjustments to Budget Year Since FY 1996 President's Budget			
Current Budget Submit/President's Budget	8.829	7.356	7.674

Change Summary Explanation: FY96 adjustment is due to congressional adjustments to Defense Wide Appropriations and below threshold reprogramming.  
FY97 adjustment is due to revised inflation rates.

C. Other Program Funding Summary N/A

D. Schedule Profile Milestones

(U) FY 1995  
1st-4th Quarter-Multi level security accreditation and certification of C3I systems; Upgrade wireless systems testbed; Enhanced Traffic Loading Device; Establish Test Support Subsystem; FY 95 network T&E requirements; BOS and RPMAR and Corporate MIS Database; Improvement and modernization.

(U) FY 1996  
1st-4th Quarter-BOS and RPMAR and Corporate MIS Database; business process review and improvement; test infrastructure

(U) FY 1997  
1st-4th Quarter- BOS and RPMAR and Corporate MIS Database; business process review and improvement; test infrastructure

Page 17 of 18

UNCLASSIFIED

21

UNCLASSIFIED

DATE: March 1996

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

BNDT&E Defense Wide/07

111

### C3 Interoperability/020804SK/Major Damage and Test Facility Bass (MBTFB)

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- a. Improvement and Modernization (I&M)
  - b. Base Operating Support (BOS)
  - c. Other Institutional Expenses

total:

## B Budget Acquisition History and Planning Information

TOTAL PROJECT

TOTAL PROJECT

TOTAL MANAGEMENT AND SUPPORT

\* Current OMNIBUS contracts expire in FY 96 and new contracts will be awarded in FY 97.

1

Page 18 of 18

## R-1 Shopping List UNCL ASSISTED

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

### APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

		R-1 ITEM NOMENCLATURE								
		National Military Command System (NMCS)-Wide Support/0302016K								
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
	COST (in millions)									
Total Program Element (PE) Cost		3.536	1.995	2.047	2.158	2.234	2.356	2.481	Contg	Contg
NMCS Subsystem Engineering/T50		1.553	.400	.379	.428	.465	.552	.643	Contg	Contg
Contingency Planning for the President (CPP)/T51		.270	0*	0	0	0	0	0	Contg	Contg
NMCS Command Center Engineering/S32		1.314	1.221	1.268	1.315	1.337	1.359	1.378	Contg	Contg
Support to Defense Support Activity (DSA)/Z60		.399	.374	.400	.415	.432	.445	.460	Contg	Contg

A. Mission Description and Budget Item Justification:

This program provides concept development, requirements definition, proof-of-principle experiments, rapid prototyping and technology insertions, technical specifications, systems engineering and integration, and technical assessments for NMCS Command and Control (C2) systems. This support provides informed decision-making linkage between the National Command Authorities (NCA) and the Commanders-in-Chief (CINC) of the Unified and the Specified Commands. Concentrating on the CINCs, this engineering draws upon improved C2 methodologies and technology insertion opportunities to meet the command, control and information system requirements of the CINCs for all crises and security threats involving US military forces. These efforts emphasize interoperability and are designed to contribute directly to the achievement of the global C4I infrastructure. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\*In FY96, this project transfers to PE0303131K.

Page 1 of 17

UNCLASSIFIED

23

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				National 1 Military Command System (NMCS)-Wide Support/0302016K					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
NMCS Subsystem Engineering/T50	1.553	.400	.379	.428	.465	.552	.643	.643	Contig

A. Mission Description & Budget Item Justification. This project provides subsystem engineering support to C4I systems by developing customized, interoperable information systems from systems technical architectures; identifies, prototypes and evaluates subsystem components in C2 environment; provides technology assessments of Commercial Off-the-Shelf Software/Government Off-the-Shelf Software (COTS/GOTS) products; and evaluates the utility of advance command center system support capabilities for interfacing with CINC C2 Information Systems. To accommodate rapid changes in requirements and increasing budget pressures, new approaches to reduce development and integration time, as well as costs for command and control systems, must be sought. The active participation in Secure Tactical Data Network (STDN) demonstrations provides a rapid assessment of technology advances and generates interoperability issues and associated solutions. The objective of the Multi-Level Security (MLS) program is to expedite the fielding of MLS technology and capabilities in DOD through MLS technology insertion in support of the Global Command and Control System (GCCS). Beginning FY 1996, the MLS portion of this project will migrate to the O&M appropriation under PE 0303150K.

FY 1995 Accomplishments:

- o Document findings of JWD-94 (Nov 94; \$75K).
- o Plan and participate in JWD-95, incorporating new technologies such as image manipulation, new mapping technology, communications management and data compression, and cost-effective distributed computing (Sep 95; \$101K).
- o Perform field evaluations for the "flyaway" workstations delivered to the Marines in the Pacific (Feb 95; \$92K).
- o Continue to evaluate the performance of flyaway workstations by collecting information from competing vendors and by prototyping new capabilities (Sep 95; \$149K).
- o Continue to implement and assess a deployable JTF "modular C4I package" and transition to a common JTF solution for CINCs (Sep 95; \$200K).
- o Analyze and evaluate candidate software products for the evolving GCCS baseline (Jun 95; \$500K).
- o Provide mission support to Joint Staff and operational CINC level through test and evaluation of integrated GCCS C3 hardware and system network and joint application software (Sep 95; \$436K).

\$1.553M Total

Page 2 of 17

UNCLASSIFIED

24

UNCLASSIFIED

**RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)**

DATE: March 1996

**APPROPRIATION/BUDGET ACTIVITY**

RDT&E, Defense Wide/07

**R-1 ITEM NOMENCLATURE**

National Military Command System (NMCS)-Wide Support/0302016K

COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
NMCS Subsystem Engineering/T50		1.553	.400	.379	.428	.465	.552	.643	Contig	Contig

FY 1996 Plans:

- o Continue to participate in JWID and similar exercises to assess interoperability among the Services and to introduce new technology (Sep 96; \$129K).
- o Continue to improve the capabilities of portable flyaway packages through prototyping and evaluations (Sep 96; \$271K).

\$ 400M Total

FY 1997 Plans:

- o Make enhancements to the JTF Deployable System (Sep 97; \$245K).
- o Conduct workstation technology assessments (Sep 97; \$50K).
- o Make COTS/GOTS integration enhancements (Sep 97; \$84K).

\$ 379M Total

Acquisition strategy: Aerospace Systems Inc., Arlington, VA; Booz-Allen & Hamilton Inc., Arlington, VA

Page 3 of 17

UNCLASSIFIED

25

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

**APPROPRIATION/BUDGET ACTIVITY**

RDT&amp;E, Defense Wide/07

COST (in millions)		FY95				FY96				FY97				FY98				FY99				FY00				FY01				FY02			
NMCS Subsystem Engineering/TS0		1.553		.400		.379		.428		.465		.552		.643																			

**B. Program Change Summary:**

	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02
Previous President's Budget (FY1996)	1.553	.412						
Appropriated Value	1.553	.412						
Adjustments to Appropriated Value	0	-.012						
Adjustments to Budget Year Since FY96 President's Budget								
Current Budget Submit/President's Budget	1.553	.400						
<u>Change Summary Explanation:</u> N/A								
FY96 reduction due to Congressional adjustment to Defense-wide investment appropriation.								
FY97 reduction due to revised inflation rates.								

**C. Other Program Funding Summary:**

Related RDT&E: Program Element #0208045K, C3 Interoperability.

**D. Schedule Profile:**

FY1995 1st quarter:	Fielding of Final Joint Operational Support Systems (JOSS) Configuration and Integration into PACOM Theater Command Control System (TCCS) Network
2nd quarter:	Portable Tactical Automated Dependent Surveillance Systems (PTADSS) Integration with JOSS

Page 4 of 17

UNCLASSIFIED

26

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07					National Military Command System (NMCS)-Wide Support/0302016K					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
NMCS Subsystem Engineering/T150		1.553	.400	.379	.428	.465	.552	.643	Contig	Contig

## D. Schedule Profile (Continued)

FY1995 3rd quarter: MARFORPAC PTADSS Command Post Exercises (CPX) Participation

JWID-95 Demonstration/Scenario Development

Award of new SETA contract

PTADSS Fielded at MARFORPAC

Establish network engineering infrastructure and network management of JWID network

JTF workstation Prototype Exercise Participation

JWID-96 Demonstration/Scenario Development

Federal Agencies Integration of JTF Prototype

Exercise first option year of SETA contract

JTF Workstation Prototype Enhancements

Establish network engineering infrastructure and network management of JWID network

Enhancement to JTF Prototype for Federal Agencies

JWID-97 Demonstration/Scenario Development

Exercise of second option year of SETA contract

Technology assessment for JTF Operations

Establish network engineering infrastructure and network management of JWID network

FY1996 2nd quarter:

3rd quarter:

4th quarter:

FY1997 3rd quarter:

4th quarter:

FY1998 3rd quarter:

4th quarter:

FY1999 3rd quarter:

4th quarter:

FY2000 3rd quarter:

4th quarter:

FY2001 3rd quarter:

4th quarter:

FY2002 3rd quarter:

4th quarter:

FY2003 3rd quarter:

4th quarter:

FY2004 3rd quarter:

4th quarter:

FY2005 3rd quarter:

4th quarter:

FY2006 3rd quarter:

4th quarter:

Page 5 of 17

UNCLASSIFIED

27

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996							
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> National Military Command System (NMCS) - Wide Support 0302016K/NMCS Subsystem Engineering (T50)							
A. Project Cost Breakdown (\$000)		FY95	FY96						
Project Cost Categories			FY97						
a. Systems Engineering		1,553	400						
Total		1,553	400						
B. Budget Acquisition History and Planning Information. Support and Management Organizations									
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget To Complete FY97	Total Program
Multiple Performing Activities	C/SS CPAF CPFF WRPO					1,553	400	379	Contig
Government Furnished Property: N/A									Contig
Total Project						1,553	400	379	

Page 6 of 17

R-1 Shopping List  
UNCLASSIFIED

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/07				National Military Command System (NMCS)-Wide Support/0302016K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Contingency Planning for the President (CPP)/T51	.270	0*	0	0	0	0	0	0	Contng	Contng

A. Mission Description and Budget Item Justification:  
All aspects of this project are classified and require special access. Therefore, information on this project is not contained in this document but can be obtained upon request.

\* In FY96, this project transfers to Program Element 0303131K.

B. Program Change Summary:

	FY95	FY96	FY97
Previous President's Budget (FY 1996)	.357	0	0
Appropriate Value	.357		
Adjustments to Appropriated Value	-.087		
Current Budget Submit/President's Budget	.270		

Change Summary Explanation:  
FY95 adjustments due to below threshold reprogramming.

C. Other Program Funding Summary:  
Related RDT&E: PE 0303131K Minimum Essential Emergency Communications Network (MEECN) in FY 96-01.

D. Schedule Profile:  
Information can be provided upon request.

Page 7 of 17

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE							
RDT&E, Defense Wide/07		National Military Command System (NMCS)-Wide Support/0302016K/Contingency Planning for the President (CPP)(T51)							
A. Project Cost Breakdown (\$000)		FY95	FY96						
Project Cost Categories									
a. Systems Engineering		270	0						
Total		270	0						
B. Budget Acquisition History and Planning Information: Support and Management Organizations									
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget To Complete	Total Program
Multiple Performing Activities						270	0	0	Conting
Government Furnished Property: N/A									
Total Project						270	0	0	

Page 8 of 17

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE National Military Command System (NMCS)-Wide Support/0302016K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
NMCS Command Center Engineering/S32		1.314	1.221	1.268	1.315	1.337	1.359	1.378	Contig	Contig
<p><b>A. Mission Description and Budget Item Justification:</b>            This project provides overall system engineering and technical integration activities for a broad spectrum of command center systems which provide the underpinning capabilities for the crisis/war decision-making processes of the National Command Authorities, the National Military Command System, and the Unified and Specified Commanders-in-Chief. Technical activities include requirements analysis, systems definition and engineering, and rapid prototyping. The project emphasizes the utilization of commercial off-the-shelf and emerging technologies for application in NMCS command centers in information processing and overall facility design to provide common solutions to theater, national, and world-wide crisis situations affecting the Department of Defense and the Executive Office of the President.</p>										
<p><b>FY 1995 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>o Provide system engineering support for National Airborne Operations Center (NAOC) new Mod Block development and integration (Sep 95; \$103K).</li> <li>o Provide system engineering support for diverse communications and information system requirements of the NAOC aircraft (Ongoing; \$97K).</li> <li>o Provide systems engineering support for diverse communications and information system requirements of the WWMCCS Airborne Resources (WABNRES) including CINC, TACAMO, Presidential, and other executive aircraft (Ongoing; \$451K).</li> <li>o Provide system engineering support to implement a replacement Emergency Action Message (EAM) dissemination system for NMCS which is integrated into the Defense Message System (DMS) program and interfaced to MILSTAR (Sep 95; \$194K).</li> <li>o Develop engineering plans for National Military Command Center (NMCC) and NMCC-Site R to provide a seamless transition into the new NMCC (Sep 95; \$190K).</li> <li>o Provide systems engineering and systems integration to transition the C2 system from the old NMCC to the new NMCC as part of the overall command centers renovation and relocation (Sep 95; \$279K).</li> </ul> <p>\$1.314M Total</p>										

Page 9 of 17

UNCLASSIFIED

31

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE				DATE: March 1996	
RDT&E, Defense Wide/07			National Military Command System (NMCS)-Wide Support/0302016K									
COST (in millions)			FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	
NMCS Command Center Engineering/S32		1.314	1.221	1.268	1.315	1.337	1.359	1.378	Contig	Contig	Contig	
FY 1996 Plans:												
o Technical analysis for implementation of improvements of NEACP and SAM aircraft (Sep 96; \$155K).												
o Engineering for implementation of an Airborne Communications Bus on the NEACP to interconnect mission equipment (Jun 96; \$152K).												
o Engineering for implementation of Automated Workstations on the NEACP to provide communications operator support, equipment control, and patch & test (Sep 96; \$100K).												
o Engineering for implementation of new red/black voice switching systems on the NEACP (Jun 96; \$122K).												
o Engineering for qualitative operational test and evaluation of major NEACP improvements (Sep 96; \$65K).												
o Providing technical analysis of NMCC and NMCC Site R operational requirements and development of engineering alternatives to improve strategic and crisis capabilities (Sep 96; \$140K).												
o Providing technical support for operational evaluation of FOC Special Technical Operations communications (May 96; \$132K).												
o Engineering for implementation of new consolidated red/black voice switching systems for NMCC and NMCC Site R (Sep 96; \$180K).												
o Integration engineering and transition planning for critical NMCC C3 systems in response to the new NMCC Pentagon renovation for design of facilities and communications systems (Sep 96; \$175K).												
\$1.221M Total												
FY 1997 Plans:												
o Technical analysis for implementation of improvements to NEACP and SAM aircraft (Sep 97; \$100K).												
o Engineering support for qualitative operational test and evaluation of major NEACP improvements (Sep 97; \$75K).												
o Trouble-shooting and support of current NEACP operations (Sep 97; \$150K).												
o Development of overall and individual systems and subsystem engineering, transition plans and test plans for moving the NMCC to another location in the Pentagon (May 97; \$666K).												
o Engineering evaluation of new emergency message and TW/AA systems for the NMCC and NMCC Site R (Sep 97; \$180K).												
o Integration engineering and transitioning secure NMCC systems to the DMS (Feb 97; \$97K).												
\$1.268M Total												

Work Performed By: MITRE, VA; Electrospase Systems, Inc., Arlington, VA; Booz-Allen &amp; Hamilton Inc., Arlington, VA.

Page 10 of 17

UNCLASSIFIED

32

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07		National Military Command System (NMCS)-Wide Support/0302016K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
NMCS Command Center Engineering/SS2		1.314	1.221	1.268	1.315	1.337	1.359	1.378	Contig	Contig

## B. Program Change Summary:

	FY95	FY96	FY97
Previous President's Budget (FY1996)	1.314	1.336	1.344
Appropriated Value	1.314	1.336	
Adjustments to Appropriated Value	0	-.115	
Adjustments to Budget Year Since FY96 President's Budget			.076
Current Budget Submit/President's Budget	1.314	1.221	1.268

## Change Summary Explanation: N/A

FY96 reductions due to Congressional adjustments to Defense-wide investment appropriations.

FY97 reduction due to revised inflation rates.

## C. Other Program Funding Summary:

	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Budget to Complete	Total Cost
O&M 0302019K	.703	.652	.427	.276	.224	.125	.013	Contig	Contig

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
		National Military Command System (NMCS)-Wide Support/0302016K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
NMCS Command Center Engineering/SS2		1.314	1.221	1.268	1.315	1.337	1.359	1.378	Contig	Contig

## D. Schedule Profile:

- FY1995      2nd quarter: Develop new 5-year contract for NMCS Engineering Test & Evaluation.  
                   4th quarter: Develop new 5-year contract for Command Center System Engineering.  
                   4th quarter: Prepare initial overall system transition engineering plan for new NMCC.  
FY1996      2nd quarter: Develop Option Year 1 of contract for NMCS Engineering T&E.  
                   4th quarter: Develop Option Year 1 of contract for Command Center System Engineering.  
                   4th quarter: Provide system engineering for implementation of new NEACP red/black voice switching system.  
                   1st quarter: Provide User Test & Evaluation criteria for NEACP Mod Block V.  
                   2nd quarter: Develop Option Year 2 of contract for NMCS Engineering T&E.  
                   4th quarter: Develop Option Year 2 of contract for Command Center System Engineering.  
FY1997      4th quarter: Complete Engineering for systems transition of new NMCC.

Page 12 of 17

UNCLASSIFIED

34

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE: March 1996
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE				
RDT&E, Defense Wide/07			National Military Command System (NMCS)-Wide Support/0302016K/ NMCS COMMAND CENTER ENGINEERING (S32)				
A. Project Cost Breakdown(\$000)							
Project Cost Categories			FY95	FY96	FY97		
a. System Engineering			1,314	1,221	1,268		
B. Budget Acquisition History and Planning Information (\$000)							
Support and Management Organizations:							
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96
Multiple Performing Activities							
Government Furnished Property: N/A							
TOTAL PROJECT							
1,314			1,221			1,268	
							Total Program Contig

Page 13 of 17

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

## APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
		National Military Command System (NMCS)-Wide Support/0302016K								
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Support to Defense Support Activity/Z60		.399	.374	.400	.415	.432	.445	.460	Contig	Contig

## A. Mission Description and Budget Item Justification:

This project provides direct support to the Defense Support Activity (DSA) as prescribed in DoD Directive 5100.81. This project is unique in terms of the policy decisions supported and that the customers supported are actual DoD policy decision makers. Z60 supports basic research and the acquisition and enhancement of software that aids in the illumination of counter-proliferation issues. Research is also provided in a number of areas of special interest to the OSD's theater tactical ballistic missile and cruise missile defense community and Precision Guided Munition (PGM) communities, as well as the defense planning community, and the acquisition and employment policy making communities. It also support systems engineering, development of state-of-the-art technologies and the translation of these technologies into leading edge analytical models. Acquisition of support is provided by competitively awarded contracts.

## FY1995 Accomplishments:

- o Examined the Theater Missile Defense (TMD) Architecture and proposed optimal configuration of weapon systems and integral Battle Management Command, Control, Communications and Computer Systems (Sep 95; \$70K).
  - o Provided analysis for Cruise Missile Defense (CMD) Plan to assess current and projected threat and appropriate defensive capabilities to effectively counter the threat (Sep 95; \$30K).
  - o Developed a mathematical TMD munitions inventory analysis model and Radar Cueing effectiveness model to improve sensor-to-shooter effectiveness in Theater Missile Defense programs (Sep 95; \$99K).
  - o Provided ASD/ISP a view of round shock effects to critically important offset axis deeply buried targets; used in evaluating effectiveness of current and projected weapon systems to penetrate strategic military sites (Sep 95; \$100K).
  - o Evaluated the effects of chemical and biological munitions on aircraft generation rates; influenced policies on military response to aggressor actions involving these types of munitions (Sep 95; \$100K).
- \$.399M Total**

## FY1996 Plans:

- o Continue to develop analytical tools used to support assessment of joint warfighting operational plans' compliance with the Secretary's guidance and to rapidly illuminate policy issues. This development will focus on illustrating PGM effects and optimal deployment of theater missiles defenses (Sep 96; \$96K).
  - o Continue to acquire and enhance leading edge analytical tools to rapidly illuminate policy issues in the following areas:
    - 1) the probability of structural damage to deep underground targets, and
    - 2) the effects of chemical and biological munitions on military operations (Sep 96; \$90K).
  - o Analyze the potential contributions of Navy Upper Tier defensive systems (Sep 96; \$96K).
  - o Develop analytical tools for the study of both the cruise missile defense and ballistic missile threats evolve (Sep 96; \$55K).
  - o Provide research support to the USD(A) as the cruise missile and ballistic missile threats evolve (Sep 96; \$37K).
- \$.374M Total**

UNCLASSIFIED

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>		<b>DATE: March 1996</b>							
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> National Military Command System (NMCS)-Wide Support/0302016K							
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Support to Defense Support Activity/Z60	.399	.374	.400	.415	.432	.445	.460	Contg	Contg

**FY1997 Plans:**

- o Continue to develop analytical tools used to support assessments of joint warfighting operational plans' compliance with the Secretary's guidance and to rapidly illuminate policy issues. This development will focus on illustrating PGM effects and optimal deployment of theater missile defenses (Sep 97; \$100K).
- o Continue to acquire and enhance leading edge analytical tools to rapidly illuminate policy issues in the following areas:
  - 1) the probability of structural damage to deep underground targets, and
  - 2) the effects of chemical and biological munitions on military operations (Sep 97; \$100K).
- o Examine the effectiveness of current and planned defensive systems against emerging threats (Sep 97; \$100K).
- o Develop analytical tools for the study of both the cruise missile defense and ballistic missile defensive systems, technologies, logistics, and architectures (Sep 97; \$50K)
- o Provide research support to the USD(A) as the cruise missile and ballistic missile threats evolve (Sep 97; \$50K)

**\$400M Total**

**B. Program Change Summary:**

	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
Previous President's Budget (FY 1996)	.399	.405	.413
Appropriated Value	.399	.405	
Adjustments to Appropriated Value	0	-.031	
Adjustments to Budget Year since FY96 President's Budget			-.013
Current Budget Submit/President's Budget	.399	.374	.400

**Change Summary Explanation:**

FY96 reductions due to Congressional adjustments to Defense-wide investment appropriations.  
FY97 reductions due to revised inflation rates.

**C. Other Program Funding Summary:**

Not applicable.

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

		R-1 ITEM NOMENCLATURE				National Military Command System (NMCS)-Wide Support/0302016K				
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Support to Defense Support Activity/Z60		.399	.374	.400	.415	.432	.445	.460	Contg	Contg

## D. Schedule Profile:

## Fiscal Year actual and planned events by quarter

	FY95				FY96				FY97			
	1	2	3	4	1	2	3	4	1	2	3	4
Annual Contract Renewal	X		X		X		X		X		X	

Page 16 of 17

UNCLASSIFIED

38

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07		National Military Command System (NMCS)-Wide Support/0302016K/ SUPPORT TO DEFENSE SUPPORT ACTIVITY (Z60)	
A. Project Cost Breakdown(\$000)		FY95	FY96
Project Cost Categories		399	374
a. Basic Research and Software Analysis			
Total		399	374
			400
B. Budget Acquisition History and Planning Information (\$000)			
Support and Management Organizations:			
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC
Project Office EAC	Prior to FY95	Budget FY95	Budget To Complete
		399	374
		400	Contig
Contingency			
Multiple Performing Activities			
Government Furnished Property: N/A			
Total Project		399	374
		400	

Page 17 of 17

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
		Joint/Defense Information Systems Engineering and Integration/0302019K								
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
COST (in millions)										
Total Program Element (PE) Cost	RDT&E, Defense Wide/07	9.774	3.745	4.594	4.740	4.999	5.435	5.897	Conting	Conting
MILSATCOM & Defense Information Infrastructure Planning/E61		6.871	0	0	0	0	0	0	Conting	Conting
Defense-Wide C3 Architecture & Planning/T62		166	1.323	1.399	1.470	1.551	1.717	1.885	Conting	Conting
Theater C3 Technical Integration/T63		.686	.447	0*	0	0	0	0	Conting	Conting
Technology Advancement/A19		.491	.349	.361	.367	.362	.377	.393	Conting	Conting
Special Projects/T64		1.210	1.100	1.155	1.205	1.253	1.394	1.541	Conting	Conting
CINCUSACOM Support/T65		.350	.526	0*	0	0	0	0	Conting	Conting
CINC/JTF C4 Integration/T66		0	0	1.679	1.698	1.833	1.947	2.078	Conting	Conting

## A. Mission Description and Budget Item Justification:

This program provides overall system analysis, architectural development, system engineering, integration, and developmental engineering responsibilities for joint and national level command, control, and communications (C3) systems to ensure the affected systems continue to be responsive in current, dynamically changing environments. These activities involve all MILSATCOM systems and other joint/national level systems which necessitate a high degree of multi-service/agency planning and development. Included are technical support and engineering integration to facilitate compliance with standards and technical architectures and to improve the command centers of the Unified and Specified (U&S) Commands. Technical support in the above mentioned activities is provided to the Office of the Secretary of Defense (OSD), the Joint Staff (JS), Unified and Specified Commands (CINCs), the Military Departments and Defense Agencies. This program element develops planning guidance backed by analysis and data to support OSD, the JS, and the CINCs in prioritizing their Command and Control (C2) requirements and acquisitions. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\*Beginning FY 1997, Projects T63 and T65 are combined into a new project, "CINC/JTF C4 Integration", T66.

Page 1 of 25

UNCLASSIFIED

40

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07				Joint/DDefense Information Systems Engineering and Integration/0302019K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete			
MILSATCOM & DII PLANNING/E61	6.871	0*	0	0	0	0	0	0	Contig			
									Contig			

**A. Mission Description & Budget Item Justification:**

The rapid evolution of the global military environment is driving a major evolution of the DOD force structure and military operations requiring greater flexibility to meet the global warfighting requirements to rapidly project forces anywhere in the world. This project supports the planning and decision management to provide responsive communications and information services to support the evolving military missions. The efforts support integrated DOD satellite communications planning and investment strategy including all Military Satellite Communications (MILSATCOM) systems and commercial SATCOM capabilities, and the integrated SATCOM planning and decision management for the Defense Information Infrastructure (DII). The SATCOM investment strategy and acquisition roadmap provide guidance to the Department, Services, and Agencies for the acquisition and upgrade of MILSATCOM systems and the cost effective acquisition of commercial SATCOM services. The Joint C4I Communications Decision Support Center (JCDS-C) is provided for the Joint Staff as the single DOD source of validated requirements. This work is essential to achieve the DISA goal of quality information services at an affordable cost through a deliberate decision management process. The DISA/ARPA Advanced Information Technology Services Joint Program Office (AITS-JPO) integrated advanced technology research and development efforts from ARPA and others, focus the flow of these technologies from R&D to widespread experimental uses, to leading edge utility and from leading edge utility to maximize the potential for migration into the DII and the National Information Infrastructure (NII). The DISA funding under this program allowed the AITS-JPO to leverage research and development funding and efforts.

\*This project is being moved to PE0303126K starting in FY96. Only FY95 work is described here. FY96 and beyond efforts are reported in the PE0303126K summary.

Page 2 of 25

UNCLASSIFIED

41

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				Joint/Defense Information Systems Engineering and Integration/0302019K					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
MILSATCOM & DII PLANNING/E61	6.871	0	0	0	0	0	0	0	Contig
									Contig

(U) FY 1995 Accomplishments:

- o Updated the JCDS/C (development and operations) (Contig/\$1,410K).
- o Update SATCOM Investment Strategy and Roadmap, revise commercial SATCOM acquisition plan, and update SATCOM/DII Integration (Contig/\$1,118K).
- o Assess DII architectures and decision roadmaps and provide integrated acquisition decision management decision guidance and direction (Contig/\$1,318K).
- o Provide oversight and direction for DISA Special Projects (Contig/\$450K).
- o Monitor candidate information system technologies and capabilities which are still in research and development for potential integration into the AITS-JPO Pilot Service portfolio (Contig/\$100K).
- o Participate, initiate, expedite, or collaborate in Advanced Concepts Technology Demonstration in support of leading edge technology services (Contig/\$300K).
- o Evaluate available candidate AT&T services versus user requirements and select promising technologies for pilot service (Contig/\$700K).
- o Develop and coordinate plans and strategies for migration and integration of selected Leading Edge Services into DISN (Contig/\$800K).
- o Integrate modeling and simulation and High Performance Computing Wide Area Networks (Contig/\$300K).
- o Provide oversight for introduction of standards based video teleconferencing into the Defense Simulation Internet (DSI) (Contig/\$50K).
- o Initiate engineering analysis to extend bandwidth on demand and end-to-end security services to deployed forces (Contig/\$50K).
- o Consolidate leading edge service and network management functions into an integrated Management Prototype (Contig/\$200K).
- o Collaborate with NSA on the development phase of key agile security device (Contig/\$75K).

\$6.871M Total

Acquisition strategy: SETA support contract (CPFF-LOE) was competitively awarded in FY94Q3 and consists of a base year and 4 option years. FFRDC support is procured sole source through the sponsoring Service (e.g., the Army, for MITRE).

Page 3 of 25

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE							
RDT&E, Defense Wide/07							Joint/Defense Information Systems Engineering and Integration/0302019K							
COST (in millions)		FY95		FY96		FY97		FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	
MILSATCOM & DII PLANNING/E61		6.871		0		0		0	0	0	0	0	Contig	
B. Program Change Summary							FY95		FY96		FY97		FY98	
Previous President's Budget (FY 1996)							0*		6.653		6.653		6.653	
Appropriated Value														
Adjustments to Appropriated Value														
Current Budget Submit/President's Budget														
Change Summary Explanation:														
FY95 increase reflects additional emphasis on the integration of leading edge technologies across all DISA functional areas.														
C. Other Program Funding Summary:														
Not Applicable														
D. Schedule Profile:														
FY95		3rd quarter:		Execute SETA support option year.										
		4th quarter:		Execute FIRDDC support MPRs.										
		4th quarter:		SOW for SETA support.										

\* Funding for this project has been moved to P.E. 0303126K beginning in FY96.

Page 4 of 25

43

UNCLASSIFIED

UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE: March 1996</b>
<b>APPROPRIATION/BUDGET ACTIVITY</b>		<b>R-1 ITEM NOMENCLATURE</b>
RDT&E, Defense Wide/07		Joint/D Defense Information Systems Engineering and Integration/0302019K
<b>A. Project Cost Breakdown</b>		
Project Cost Categories	<u>FY95</u>	<u>FY96</u>
Management Support Services	2,440	Refer to P.E. 0303126K
Systems analysis; design & reprogramming	2,213	
Engineering & Technical Service	2,218	
Total	6,871	
<b>B. Budget Acquisition History and Planning Information</b>		
	N/A	

Page 5 of 25

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

<b>APPROPRIATION/BUDGET ACTIVITY</b>							<b>R-1 ITEM NOMENCLATURE</b>				DATE: March 1996	
RDT&E, Defense Wide/07			Joint/Defense Information Systems Engineering and Integration/0302019K									
		COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	
Defense-Wide C3 Architecture & Planning/T62		.166	1.323	1.399	1.470	1.551	1.717	1.885	Contig	Contig		

A. Mission Description & Budget Item Justification:

This project encompasses two efforts: (1) The first effort provides the interoperability and integration of resources essential to the achievement of a Global C4I Infrastructure that will be "seamless" to the user. This is accomplished through a multi-level planning program which includes four elements: (a) The Defense Information Infrastructure (DII), which integrates all DOD information systems, sensors, data storage services, communications networks, and computer storage devices to provide collection, processing, storage, display and information transfer; (b) DII Technology Insertion, which provides assessment of the utility of new technology through high level performance simulation of the DII; (c) The Defense Information Systems Network (DISN) which addresses the fixed command-user systems, treating the long haul communications, base-level, and rear-area tactical communications as an end-to-end system with particular focus on user requirements, technology and standards, features and services, security, and network management; (d) the DISN Security which includes current and future DISN security initiatives for communications. (2) The second effort provides planning for interoperability and integration of C4I for the Warrior. This is accomplished through the development of enterprise, mission, functional and technical architecture products. These products depict how all DOD systems, to include information, sensors, data storage services, and communications networks provide collection, processing, storage, display and information transfer. It incorporates the DII and National Information Infrastructure (NII). This project gives DOD overall improved operational performance and reduced costs through common architecture standards and interfaces, and a sharing of assets and capabilities.

(U) FY 1995 Accomplishments:

- o Develop the Global Command and Control System (GCCS) baseline architecture for the remaining eight CINCs to include all Warrior Joint, Combined or Allied components operating in the Theaters (Jan 95; \$166K).

\$1.166M Total

(U) FY 1996 Plans:

- o Provide major update of DISN architecture guidance based on FY95 accomplishments together with technology and standards evolution (Sep 96; \$471K).
- o Initiate DISN transition plan in support of Global Grid (Sep 96; \$341K).
- o Develop, enhance and apply engineering tools for the computer-aided networks topology design and analysis of current operational DISN networks, planned future DISN networks and service offerings, and proposed alternative future DISN/DII architectures, particularly using ATM and SONET (Sep 96; \$511K).

\$1.323M Total

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996																																									
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Joint/Defense Information Systems Engineering and Integration/0302019K																																												
RDT&E, Defense Wide/07		cost (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost																																				
Defense-Wide C3 Architecture & Planning/T62		.166	1.323	1.399	1.470	1.551	1.717	1.885		Contig	Contig																																					
(U) FY 1997 Plans:																																																
<ul style="list-style-type: none"> <li>o Initiate analysis of protocols needed for the goal DISN as a GIGABIT network; analysis of congestion control techniques for the goal DISN as a GIGABIT network; perform trade-off analysis of services provided versus threats encountered in the global DISN (Sep 97; \$495K).</li> <li>o Continue development of DISN transition strategy and plan in support of Global Grid based on FY96 accomplishments and assess global telecommunications state-of-the-art (Sep 97; \$358K).</li> <li>o Continue to develop, enhance and apply engineering tools for the computer-aided network topology design and analysis of current operational DISN networks, planned future DISN networks and service offerings, and proposed alternative future DISN/DII architectures, particularly using ATM and SONET. (Sep 97; \$546K).</li> </ul>																																																
<p>\$1.399M Total</p> <p>Acquisition Strategy: The MITRE Corporation, McLean, VA; Booz-Allen &amp; Hamilton, Inc., Bethesda, MD; The Institute for Defense Analysis, Alexandria, VA; Artel, Inc., Reston, VA; Logicon, Reston, VA; Computer Sciences Corporation.</p>																																																
B. Program Change Summary																																																
<table> <thead> <tr> <th></th> <th><u>FY95</u></th> <th><u>FY96</u></th> <th><u>FY97</u></th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY 1996)</td> <td>.166</td> <td>1.869</td> <td>1.756</td> </tr> <tr> <td>Appropriated Value</td> <td>.166</td> <td>1.869</td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td>0</td> <td>.546</td> <td></td> </tr> <tr> <td>Adjustments to Budget Year Since FY 96 President's Budget</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Current Budget Submit/President's Budget</td> <td>.166</td> <td>1.323</td> <td>1.399</td> </tr> <tr> <td>Change Summary Explanation:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY96 reduction due to Congressional adjustment of Defense-wide investment appropriations and below reprogramming threshold.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY97 reduction due to revised fiscal guidance.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>														<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	Previous President's Budget (FY 1996)	.166	1.869	1.756	Appropriated Value	.166	1.869		Adjustments to Appropriated Value	0	.546		Adjustments to Budget Year Since FY 96 President's Budget				Current Budget Submit/President's Budget	.166	1.323	1.399	Change Summary Explanation:				FY96 reduction due to Congressional adjustment of Defense-wide investment appropriations and below reprogramming threshold.				FY97 reduction due to revised fiscal guidance.			
	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>																																													
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FY97 reduction due to revised fiscal guidance.																																																
C. Other Program Funding Summary																																																
Related RDT&E: Relates to other projects in P.E. 0302019K																																																

Page 7 of 25

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE		
RDT&E, Defense Wide/07							Joint/Defense Information Systems Engineering and Integration/0302019K		
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Defense-Wide C3 Architecture & Planning/T62	.166	1.323	1.399	1.470	1.551	1.717	1.885	Contg	Contg

D. Schedule Profile

FY95	2nd quarter:	Develop Integrated Network and System Management Architecture.
	3rd quarter:	Publish DISN-Global Grid Transition Strategy.
FY96	3rd quarter:	Publish major update of Global DISN Architecture.
	4th quarter:	Develop CJNC Architecture to support GCCS.
FY97	2nd quarter:	Publish Analysis of Global DISN Services versus Threats.
	2nd quarter:	Publish C4I Migration Strategies to GCCS Target.

Page 8 of 25

UNCLASSIFIED

47

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07		Joint/Defense Information Systems Engineering and Integration/0302019K/Defense-Wide C3 Architecture & Planning (T62)	
A. Project Cost Breakdown			
Project Cost Categories		FY95	FY96
a. Systems Engineering		166	1,323
Total		166	1,323
B. Budget Acquisition History and Planning Information			
Contractor or Government Performing Activity	Contract Method/Type <u>Vehicle</u>	Award or Obligation Date	Project Office EAC
Multiple Performing Activities	SS/C CPAF CPFF MIPR WR		Prior to FY95
			Budget FY95
			Budget FY96
			Budget To Complete
			Total Program
			Contig
			Contg
Government Furnished Property: N/A			
Total Project		166	1,323
			1,399

Page 9 of 25

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE		
RDT&E, Defense Wide/07								Joint/Defense Information Systems Engineering and Integration/0302019K		
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Theater C3 Technical Integration/T63	.686	.447	0*	0	0	0	0	0	Contg	Contg

A. Mission Description & Budget Item Justification:

This project provides technical engineering support to ensure technical integration of tactical switched systems and associated network management into the Strategic Network in a seamless architecture that supports the C4I/ITW concept. The project provides support directly to the warfighting and supporting CINCs to overcome deficiencies in the interface and management between tactical and strategic as well as tactical-to-tactical switched systems and to provide C3 capabilities that contribute to mission accomplishment. This project supports DISA's designated responsibilities as the technical integrator for DISN switched systems and as the integrator for all DOD communications network management systems. In addition, it provides a method to inject Corporate Information Management (CIM), and Defense Information Infrastructure (DII) concepts, evolving architectures and standards into the theater commands, thus contributing to the achievement of the global C3I infrastructure. USCENTCOM, USEUCOM, USOUTHCOM, and USPACOM depend on this project to correct existing C3 deficiencies which have significant operational impacts. This support is near-term, externally focused and user oriented, the recommendations are developed in coordination with the warfighting planners. This project provides the technical guidance to CINCs and Service C4I system development to ensure that both CINC and Service programs incorporate and are consistent with the DISN Goal Architecture and C4I/ITW guidance.

\* Beginning FY 1997, Projects T63 and T65 are combined into a new project, "CINC/JTF C4 Integration", T66.

UNCLASSIFIED

49

Page 10 of 25

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Joint/Defense Information Systems Engineering and Integration/0302019K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Theater C3 Technical Integration/T63		.686	.447	0	0	0	0	0	Contig	Contig
(U) FY1995 Accomplishments:										
o Provide engineering support to objective system for Joint Network Management (JNM) Program (Sep 95; \$251K).										
o Initiate engineering support for a special purpose data circuit multiplexer to be placed in the Ground Mobile Forces (GMF) Gateways in support of the seamless Strat/Tac interface (Sep 95; \$120K).										
o Initiate prototype evaluations of COTS Switching candidate hardware for use in the Joint Task Force (JTF) objective architecture (Sep 95; \$64K).										
o Evaluate COTS Joint Communications Planning and Management System (JCPMS) candidates for use in switching network (Sep 95; \$40K).										
o Provide engineering support in the transition of Integrated Tactical Secure Data Network (ITSDN) into Service Programs (Sep 95; \$80K).										
o Develop Joint Integrated Tactical Communicators Architecture (Mar 95; \$131K).										
\$ .686M Total										
(U) FY1996 Plans:										
o Provide engineering for Joint Communications Planning and Management System (JCPMS) Planning and Management Support (Sep 96; \$223K).										
o Develop architecture documentation and provide support necessary for implementation of the Joint Task Force Tactical Communications Architecture, provide technical support for the Joint Task Force interoperability work, and assist with solving JTF interoperability problems referred to DISA for resolution. (Sep 96; \$224K).										
\$ .447M Total										

Acquisition strategy: Booz-Allen &amp; Hamilton, Inc., Bethesda, MD; The MITRE Corporation, McLean, VA; Logicon Eagle Technology, Inc., Reston, VA and Winter Park, FL.

Page 11 of 25

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Joint/Defense Information Systems Engineering and Integration/0302019K						
RDT&E, Defense Wide/07		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
COST (in millions)									Contg	Contg
Theater C3 Technical Integration/T63		.686	.447	0*	0	0	0	0		
B. Program Change Summary										
Previous President's Budget (FY 1996)										
Appropriated Value		.679	.927							
Adjustments to Appropriated Value		.679	.927							
Adjustments to Budget Year Since FY96 President's Budget		+.007	-.480							
Current Budget Submit/President's Budget		.686	.447							
Change Summary Explanation:										
FY96 reduction due to Congressional adjustment of Defense-wide appropriations and below threshold reprogramming.										
* In FY97, funding for this project was combined with Project T65 in a new project, T66.										
C. Other Program Funding Summary										
Operation and Maintenance:		FY95	FY96	FY97						
		.044	.027	.025						
Related RDT&E Other projects in PE #0302019K.										
D. Schedule Profile										
FY95		1st quarter:	Transition/Implementation Plan for Joint Integrated Tactical Switch (JITS).							
		1st quarter:	Final 1st Tactical Switching Goal Architecture Published.							
		2nd quarter:	Joint Requirement Oversight Council (JROC) briefing on JITS.							
		3rd quarter:	Publish JITS Operational Requirements Document (ORD).							
		4th quarter:	JITS Milestone O/II Review.							

Page 12 of 25

UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE								
			Joint/Defense Information Systems Engineering and Integration/0302019K								
COST (in millions)			FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Theater C3 Technical Integration/T63											
FY96	1st quarter:	Limited Testing and Evaluation of JITS prototypes.									
	2nd quarter:	JITS Milestone III Review.									
	2nd quarter:	Initial Fielding of Joint Communications Network Management Tool.									
	3rd quarter:	Issue RFP for JITS.									
	3rd quarter:	Fielding/Retrofit of Circuit Switch Routing Task Execution Plan (CSR TEP).									

UNCLASSIFIED

Page 13 of 25

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE							
RDT&E, Defense Wide/07		Joint/Defense Information Systems Engineering and Integration/0302019K/Theater C3							
A. Project Cost Breakdown									
Project Cost Categories		FY95	FY96						
a. Systems Engineering		686	447						
Total		686	447						
B. Budget Acquisition History and Planning Information									
Support and Management Organizations									
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget To Complete	Total Program
Multiple Performing Activities	SS/C CPAF CPFF MIPR WR				686	447	0	Config	Config
Government Furnished Property: N/A									
Total Project:					686	447	0		

\* Beginning FY 1997, Projects T63 and T65 are combined into a new project, "CINC/JTF C4 Integration", T66.

Page 14 of 25

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996						
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Joint/Defense Information Systems Engineering and Integration/0302019K									
RDT&E, Defense Wide/07		COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	
Technology Advancement/A19		.491	.349	.361	.367	.362	.377	.393			Contig	Contig	
A. Mission Description & Budget Item Justification:													
	The rapid evolution of the global military environment is driving a major evolution of the DoD force structure and military operations, requiring greater flexibility to meet the global warfighting requirements to rapidly project forces anywhere in the world. This project supports the development of a DoD-wide Defense Interactive Simulation (DIS) compliant C4I simulator. Models of the Defense Information Infrastructure (DII) support mission testing, training and operation activities, and integration with Joint Warrior Simulation (JWARS)/Joint Simulation System (JSIMS).												
(U) FY 1995 Accomplishments:													
	o Begin development of a prototype C4I model. ((Continuing; \$400K))												
	o Developed C4I prototype models to assess CINC operational plans (Continuing; \$91K))												
	\$ 49M Total												
(U) FY 1996 Plans:													
	o Development of an initial operating capability. (Continuing; \$349K))												
	\$ 349M Total												
(U) FY 1997 Plans:													
	o Integrate theater level force deployment models. (Continuing; \$223K))												
	o Begin full-scale integration with Warrior Simulation (WARSIM) 2000. (Continuing; \$138K))												
	\$ .361M Total												

Page 15 of 25

UNCLASSIFIED

54



UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE</b> March 1996
<b>APPROPRIATION/BUDGET ACTIVITY</b>		
RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> Joint/Defen. Info Sys Eng and Integration/0302019K/Technology Advancement (A19)
<b>A. Project Cost Breakdown</b>		
Project Cost Categories	<u>FY95</u>	<u>FY96</u>
a. System analysis, design and programming	291	249
b. Engineering and Technical Services	200	100
Total	491	349
<b>B. Budget Acquisition History and Planning Information:</b> N/A		

Page 17 of 25

**R-1 Shopping List**  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996																											
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07				<b>R-1 ITEM NOMENCLATURE</b> Joint/Defense Information Systems Engineering and Integration/0302019K																														
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost																								
Special Projects/T64		1.210	1.100	1.155	1.205	1.253	1.394	1.541	Contg	Contg																								
<p><b>A. Mission Description and Budget Item Justification</b> All aspects of this project are classified and require special access. Therefore, information on this project is not contained in this document but can be obtained upon request. This combines projects previously known as Strategic C3 Architecture and Thrift Account.</p>																																		
<p><b>B. Program Change Summary</b></p> <table> <thead> <tr> <th></th> <th>FY95</th> <th>FY96</th> <th>FY97</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY 1996)</td> <td>1.368</td> <td>1.412</td> <td>1.383</td> </tr> <tr> <td>Appropriated Value</td> <td>1.368</td> <td>1.412</td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td>-.158</td> <td>-.312</td> <td></td> </tr> <tr> <td>Adjustments to Budget Year Since FY96 President's Budget</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Current Budget Submit/President's Budget</td> <td>1.210</td> <td>1.100</td> <td></td> </tr> </tbody> </table> <p>Change Summary Explanation:  <b>Funding:</b> FY95 adjustment due to below threshold reprogramming.  <b>Funding:</b> FY96 reduction due to Congressional adjustment of Defense-wide appropriations and below threshold reprogramming.  <b>Funding:</b> FY97 reduction due to revised inflation rates.</p>												FY95	FY96	FY97	Previous President's Budget (FY 1996)	1.368	1.412	1.383	Appropriated Value	1.368	1.412		Adjustments to Appropriated Value	-.158	-.312		Adjustments to Budget Year Since FY96 President's Budget				Current Budget Submit/President's Budget	1.210	1.100	
	FY95	FY96	FY97																															
Previous President's Budget (FY 1996)	1.368	1.412	1.383																															
Appropriated Value	1.368	1.412																																
Adjustments to Appropriated Value	-.158	-.312																																
Adjustments to Budget Year Since FY96 President's Budget																																		
Current Budget Submit/President's Budget	1.210	1.100																																
<p><b>C. Other Program Funding Summary</b></p> <p>Related RDT&amp;E: P.E. 0303131K, Minimum Essential Emergency Communications Network (MEECN).</p>																																		
<p><b>D. Schedule Profile</b> Information will be made available upon request.</p>																																		

Page 18 of 25

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
RDT&E, Defense Wide/07 Joint/Defense Information Systems Engineering and Integration/0302019K/Special Projects (T64)					
A. Project Cost Breakdown	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>		
Project Cost Categories					
a. Systems Engineering	1,210	1,100	1,155		
Total	1,210	1,100	1,155		
B. Budget Acquisition History and Planning Information Support and Management Organizations					
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC		
MITRE	SS/CPFF		Project Office EAC		
Government Furnished Property: N/A		Prior to <u>FY95</u>	Budget <u>FY95</u>		
Total Project		1,210	Budget <u>FY96</u>		
		1,100	Budget <u>FY97</u>		
		1,155	Budget To Complete		
			Config		
			Config		

Page 19 of 25

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
				Joint/Defense Information Systems Engineering and Integration/0302019K								
RDT&E, Defense Wide/07		COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
CINCUSACOM Support/T65		.350	.526		0*	0	0	0	0	0	Contig	Contig

**A. Mission Description & Budget Item Justification.**

This project develops the near and mid-term Command, Control, Communications and Computer (C4) plans for CINCUSACOM, identifies shortcomings in C4 systems and procedures and, when appropriate, prototype solutions to those shortcomings. The CJCS Unified Command Plan significantly increased ACOM's missions, giving the command the responsibility for joint training, joint force packaging, UN peacekeeping support and the land defense of CONUS and Canada. Because of this, USACOM's C4 planning encompasses missions much broader than other unified commands and will serve as a model for them. Therefore, this project's outputs not only contain the only C4 planning done for specific operational missions but they will also contain key portions of the C4 planning for support to all CJNC's operational missions. Implementation of this project will, therefore, provide global benefits for all the nation's security objectives.

**(U) FY 1995 Accomplishments:**

- o Integrated other CJNC unique system's-based force restructuring and downsizing (Nov 94; \$250K).
  - o Develop updated implementation plan (Nov 94; \$100K).
- \$.350M Total

**(U) FY 1996 Plans:**

- o Support USACOM's production of their FY96 C4SMP Assessment Update (Sep 96; \$240K).
  - o Prototype solutions to USACOM C4 deficiencies with global impact and collect data on ACOM's operational use to expedite standardized solution development (Aug 96; \$286K).
- \$.526M Total

Acquisition strategy: Logicon Eagle Technology, Inc., Winter Park, FL

\* Beginning FY 1997, Projects T63 and T65 are combined into a new project, "CINC/JTF C4 Integration", T66.

Page 20 of 25

UNCLASSIFIED

59

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Joint/Defense Information Systems Engineering and Integration/0302019K					
RDT&E, Defense Wide/07		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
COST (in millions)									Total Cost
CINCUSACOM Support/T65	.350	.526	0*	0	0	0	0	0	Contig
B. Program Change Summary									
Previous President's Budget (FY 1996)									
Appropriated Value									
Adjustments to Appropriated Value									
Adjustments to Budget Year Since FY96 President's Budget									
Current Budget Submit/President's Budget									
Change Summary Explanation:									
Funding: FY96 increase due to below threshold reprogramming.									
* FY97 funding for this project was combined with Project T63 in a new project, T66.									
C. Other Program Funding Summary									
Operation and Maintenance									
D. Schedule Profile									
FY95	1st quarter:	Place task on contract							
	3rd quarter:	Delivery of FY95 C4 Systems Master Plan							
FY96	1st quarter:	Place tasks on contract							
	3rd quarter:	Delivery of FY96 C4 Assessment							
	4th quarter:	Delivery solution recommendations for ACOM evaluation							

Page 21 of 25

UNCLASSIFIED

60

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996									
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE									
RDT&E, Defense Wide/07		Joint/Defense Information Systems Engineering and Integration/0302019K/ CINCUSACOM (T65)									
A. Project Cost Breakdown		FY95	FY96								
Project Cost Categories			FY97								
a. Systems Engineering		350	526								
Total		350	526								
B. Budget Acquisition History and Planning Information											
Support and Management Organizations											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget To Complete FY97	Budget To Complete FY96	Total Program Contig	Total Program Contig
						350	526	0			
Government Furnished Property:		N/A									
Total Project		350		526		0					

\* Beginning FY 1997, Projects T63 and T65 are combined into a new project, "CINC/JTF C4 Integration", T66.

Page 22 of 25

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07				Joint/Defense Information Systems Engineering and Integration/0302019K								
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost			
CINC/JTF C4 Integration/T66	0	0	1.679*	1.698	1.833	1.947	2.078	Contig	Contig			

**A. Mission Description & Budget Item Justification:**

This project provides technical engineering support to ensure technical integration of tactical switched systems and associated network management into the Strategic Network in a seamless architecture that supports the C4IFTW concept. The project provides support directly to the warfighting and supporting CINCs and Joint Task Forces (JTFs) to overcome deficiencies in the interface and management between tactical and strategic as well as tactical-to-tactical switched systems and to provide C3 capabilities that contribute to mission accomplishment. This project supports DISA's designated responsibilities as the technical integrator for tactical to DISN switched systems and as the integrator for all DOD communications network management systems. In addition, it provides a method to inject Defense Information Infrastructure (DII) concepts, evolving architectures and standards into the theater commands, thus contributing to the achievement of the global C4I infrastructure. USCENTCOM, USEUCOM, USPACOM, USSOUTHCOM, USSOUTHCOM, USTRANSNCOM and USACOM depend on this project to correct existing C4 deficiencies which have significant operational impacts. The CJCS Unified Command Plan significantly increased ACOM's missions, giving the command the responsibility for joint training, joint force packaging, UN peacekeeping support and the land defense of CONUS and Canada. Because of this, USACOM's C4 planning encompasses missions much broader than other unified commands and will serve as a model for them. Therefore, this project's outputs for ACOM contain not only the C4 planning done for specific ACOM operational missions, but they will also contain key portions of the C4 planning for support to all CINCs' operational missions. This project's support is near-term, externally focused and user oriented; the recommendations are developed in coordination with the warfighting planners. This project provides the technical guidance to CINCs and Service programs incorporate and are consistent with the DISN Goal Architecture and C4IFTW guidance.

**(U) FY 1997 Plans:**

- o Continue engineering support in the transition to commercial switching by the joint tactical network (Sep 97; \$146K).
  - o Continue engineering effort in the development of a joint communications planning and management system (Sep 97; \$180K).
  - o Initiate transition strategy that moves the Services into commercial off-the-shelf switching environment (Sep 97; \$107K).
  - o Provide engineering support in the resolution of combined interoperability problems (Sep 97; \$54K).
  - o Develop FY97 C4SMPs for USCENTCOM, USEUCOM, USPACOM, USSOUTHCOM, USACOM, and USTRANSNCOM IAW Joint Staff guidance (Jun 97; \$886K).
  - o Continue improvements to the C4SMP development process (Sep 97; \$70K).
  - o Develop solutions to C4 deficiencies common to the supported CINCs (Contig; \$236K).
- \$1.679M Total

Acquisition strategy: Booz-Allen & Hamilton, Inc., Bethesda, MD; The MITRE Corporation, McLean, VA, Logicon Eagle Technology, Inc., Reston, VA and Winter Park, FL.

\* This project is not a new start. It combines Projects T63 and T65 above.

Page 23 of 25

UNCLASSIFIED

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

### APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

		R-1 ITEM NOMENCLATURE				Joint/Defense Information Systems Engineering and Integration/0302019K				
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
CINC/JTF C4 Integration/T66		0	0	1.679	1.698	1.833	1.947	2.078	Contig	Contig

### B. Program Change Summary

	FY95*	FY96*	FY97
Previous President's Budget (FY 1996)			
Appropriated Value		0	
Adjustments to Appropriated Value			
Adjustments to Budget Year Since FY96 President's Budget			+1.679
Current Budget Submit/President's Budget			1.679
Change Summary Explanation:			
Funding: *Beginning FY 1997, -Projects T63 and T65 are combined into this new project.			

### C. Other Program Funding Summary

	FY95	FY96	FY97	Total Cost
Operation and Maintenance:			.025	Contig

Related RDT&amp;E, Other projects in PE #0302019K.

### D. Schedule Profile

FY97	1st quarter:	Place tasks on contract.
	2nd quarter:	Contract Award Joint Integrated Tactical Switch (JITS).
	3rd quarter:	Delivery of FY97 C4 Systems Master Plan.
	4th quarter:	JITS Limited Production Fielding.
	4th quarter:	Operational Test and Evaluation/Users Test for JITS.
	4th quarter:	JITS Asynchronous Transfer Mode (ATM) Preplanned Product Improvements (P3I) integration testing and evaluation.

Page 24 of 25

UNCLASSIFIED

63

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07		Joint/Defense Information Systems Engineering and Integration/0302019K/ CINC/JTF C4 Integration (T66)	
A. Project Cost Breakdown			
Project Cost Categories		<u>FY95</u>	<u>FY96</u>
a. Systems Engineering		0	0
Total		0	0
B. Budget Acquisition History and Planning Information			
Support and Management Organizations			
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC
Multiple Performing Activities	SS/C CPAF CPFF MIPR WR		Project Office EAC
			Prior to FY95
			Budget FY95
			Budget FY96
			Budget FY97
			Budget To Complete
			Total Program
			Config
			Config
Government Furnished Property: N/A			
Total Project:		0	0
			1,679

Page 25 of 25

64

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications						
	COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01
Total Program Element (PE) Cost: PE0303126K	27.166	20.060	23.361	8.352	8.499	8.796	9.107	Contig
Project E25 Commercial Satellite Communications Initiatives Follow-On	10.000	7.263	7.636	0	0	0	0	0
Project E26 Leading Edge Pilot Information Technology	0*	2.873	3.029	3.139	3.260	3.404	3.527	Contig
Project E61 MILSATCOM and Defense Information Infrastructure (DII) Planning	0*	4.113	4.671	4.749	4.780	4.919	5.092	Contig
Project U16 Secure Video Teleconferencing System	0.717	0.646	0	0	0	0	0	2.645
Project U20 Defense Information System Network (DISN)	5.922	0	0	0	0	0	0	14.831
Project H20 Defense Information System Network (DISN) Acquisition	1.380	2.131	7.558	0	0	0	0	13.307
Project U30 Integrated System/Network Management	2.672	0	0	0	0	0	0	5.695
Project U40 Defense Satellite Comm System (DSCS) Satellite Comm (SATCOM)	2.346	0	0	0	0	0	0	6.303
Project U50 Defense Switched Network (DSN)	0.815	0	0	0	0	0	0	1.798

Page 1 of 30

65

UNCLASSIFIED

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications					
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00
Project H80 Defense Message System (DMS)		2.904	2.589	**	**	**	FY01
Project W90 White House Situation Support Staff		0.410	0.445	0.467	0.464	0.459	0.473
						0.488	0.488
						Contig	Contig
						Contig	Contig

A. (U) **Mission Description and Budget Item Justification:** This program element funds system engineering, test and evaluation for the Defense Communications System (DCS)/Defense Information Systems Network (DISN) which provides Defense-wide communications for the day-to-day operations of the DOD and serves as the core of DOD wartime communications for the National Command Authorities (NCA), the Joint Chiefs of Staff (JCS), the Commanders in Chief (CINCs), and other critical users. This PE provides for the engineering to consolidate the operational communications networks into DISN and for the technologies, commercial equipments and service offerings to reduce the cost of the DCS/DISN and to provide valuable new information services to users.

The PE consists of 11 projects. Project E25 develops and implements a commercial satellite communications systems pilot program in support of the DSCS/DISN. Project E226 supports Leading Edge Pilot Services which include information for worldwide DOD user and research communities. This project is not a new start but an evolving functional realignment within current areas. Project E61 supports the planning and decision management to provide responsive communications and information services to support evolving military missions. Project U116 supports the development of SVTS, a highly secure video teleconferencing crisis management system used by the NCA and Executive agencies. Project U20 supports design and development of DISN, an interoperable, flexible, integrated, efficient and affordable network to provide the full spectrum of communications and information transfer requirements for the future of DOD. Project H20, DISN Acquisition, was formed in FY94 by transferring those portions of projects U20 and U30 which cover DISN service contracts. This work is not a new start. Project U130 supports the design and development of an efficient, cost effective, survivable, fully integrated, worldwide system/network management capability supporting the global grid concept, based on emerging newly developed DOD standards and incorporating the latest technology. Project U40 includes the enhancement/integration of DSCS and tactical satellite resources into DISN and use of commercial SATCOM to provide unique capabilities required for extension of DISN to deployed tactical elements. Project U50 supports network and system engineering for the DSN and the assessment, testing and network engineering of emerging technologies for their insertion into Defense Information Infrastructure (DII). Project H80 supports the development of DMS which is designed to provide the defense community a more interoperable and cost effective messaging service. Project W90 supports engineering to provide full level crisis management capabilities for the White House. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\* Neither project E26 nor project E61 are new starts. They reflect a functional realignment and a transfer of effort from PE0302019K.

\*\* Project H80 has been transferred to PE 0303129K beginning in FY 1997.

Page 2 of 30

UNCLASSIFIED

66

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project E25 Commercial Satellite Communications Initiatives Follow-On		10.000	7.263	7.636	0	0	0	0	0	44.899

## A. Mission Description &amp; Budget Item Justification:

(U) This project develops and implements pilot capabilities for a proof of concept using available commercial satellite communications capabilities. This program establishes a seed pilot network, a tool for networking planning, development of a bandwidth management capability for leased whole transponders, and validation of a concept to reduce DOD commercial satellite telecommunications costs by bundling of individual circuit leases and by consolidating telecommunications requirements on whole transponders. The pilot network will offer a variety of services that are presently not available, such as downloading high data rate information from airborne vehicles via commercial satellites to processing centers, and dissemination of information to remote users. This program will demonstrate how to integrate commercial satellite capabilities with the Defense Information System Network (DISN) and Defense Satellite Communications System (DSCS).

## (U) FY 1995 Accomplishments:

- o Piloted Network Initial Operational Capability
  - Started bandwidth mgmt services, extend coverage to Pacific area, established airborne vehicle services
- o Continued contracts for transponder and bandwidth mgmt center (\$10M)
- o Established gateway teleport to support DISN

\$10.000M Total

## (U) FY1996 Plans:

- o Continue contracts and extend services to new regions (\$7.263M)
- o Validate new contracts
- o Expand pilot network services (Ongoing)
  - Serve telemedicine, meteorological and ships at sea applications
- o Support Bosnia Peace Keeping

\$7.263M Total

## (U) FY 1997 Plans:

- o Expand pilot services (\$7.636M Ongoing)
- o Validate concepts (4Q97)
  - sustainable customer base established, integration with DSCS and DISN, final reports and business plan

\$7.636M Total

Page 3 of 30

UNCLASSIFIED

67

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications								
RDT&E, Defense Wide/07		COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project E25 Commercial Satellite Communications Initiatives Follow-On		10.000	7.263	7.636	0	0	0	0	0	0	0	44.899
<u>Acquisition Strategy:</u> All services and equipment are to be competitively procured.												
<u>B. Program Change Summary</u>												
		FY95	FY96	FY95	FY96	FY97	FY98	FY99	FY00	FY01	TOTAL COST	TOTAL COST
Previous President's Budget (FY 1996)		10.000	8.000	10.000	8.000	0	0	0	8.000	8.000	46.000	46.000
Appropriated Value												
Adjustments to Appropriated Value												
Adjustments to Budget Year Since FY 1996 President's Budget												
Current Budget Submit/President's Budget		10.000		7.263								
Change Summary Explanation:												
<u>Funding:</u> FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation. FY97 reduction due to revised inflation rates.												
Schedule: N/A Technical: N/A												
C. Other Program Funding Summary: N/A												

Page 4 of 30

UNCLASSIFIED

68

UNCLASSIFIED

DATE: March 1996

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

**D. Schedule Profile:** *Fiscal Year actual and planned events by quarter*

### Acquisition Milestones: Award third terminal

## Engineering Milestones: Award VSAT Terminal

Award transponder and terminal

## T & E milestones:

Validated Bmc/Control

Page 5 of 30

UNCLASSIFIED

69

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications/E25/ COMMERCIAL SATELLITE COMMUNICATIONS INITIATIVES FOLLOW-ON
A. Project Cost Breakdown (\$000)		
Project cost categories	<u>FY95</u>	<u>FY96</u>
1. Travel	25	25
2. Management Support Services	400	300
3. Engineering & Technical Services	9,575	6,938
Total	10,000	7,263
B. Budget Acquisition History and Planning Information:	N/A	

Page 6 of 30

70

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

**RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)**

DATE: March 1996

<b>APPROPRIATION/BUDGET ACTIVITY</b>					<b>R-1 ITEM NOMENCLATURE</b>				
RDT&E, Defense Wide/07					PE 0303126K/Long Haul Communications				
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Project E26 Leading Edge Pilot Information Technology		0	2.873	3.029	3.139	3.260	3.404	3.527	Contg

A. Mission Description & Budget Item Justification: (U) This project is not a new start but an evolving functional realignment and represents a breakout from Project E61. Leading Edge Pilot Services are information transport and value added services which are not available from the Defense Information Infrastructure (DII) Utility, and for which customers are willing to assume some of the risk associated with development of initial deployment. These services may include information processing, storage, and retrieval; communications (voice, data, video, multimedia); and security technologies and applications in command, control, and intelligence for the worldwide DOD user and research communities. This program supports the acquisition and delivery of consolidated advanced technology information services in a maximally competitive environment (as cost effectively as is possible) to customers with operational needs that exceed those capabilities currently available from the DII Utility. The resulting services will be managed in the operational context of the single information utility (DII Utility) operated and maintained by DISA. The DISA/ARPA Advanced Information Technology Services Joint Program Office (AITS-JPO) will integrate advanced technology research and development efforts from ARPA and others, focus the flow of these technologies from R&D to widespread experimental uses, to leading edge utility and from leading edge utility to maximize the potential for migration into the DII and the National Information Infrastructure (NII). The DISA funding under this program element will allow the AITS-JPO to leverage research and development funding and efforts. This project has been moved from PE0302019K to this PE starting in FY96. FY95 accomplishments and plans are described in PE0302019K. FY96 and beyond efforts are reported here.

(U) FY 1995 Plans: Described in PE0302019K, Project E61.

(U) FY 1996 Plans:

- o Monitor candidate information system technologies and capabilities which are still research and development for potential integration into the AITS-JPO Pilot Service portfolio. (\$100K) (Continuing)
  - o Participate, initiate, expedite, or collaborate in Advanced Concepts Technology Demonstrations (ACTD's) in support of leading edge technology services. (\$100K) (Continuing)
  - o Evaluate available candidate Advanced Information Technology (AIT) services versus user requirements and select promising technologies for pilot service. (\$584K) (Continuing)
  - o Develop and coordinate plans and strategies for migration of Leading Edge Services into the DII utility. (\$1,431K) (Continuing)
  - o Migrate video teleconferencing services to the DII utility. (\$150K) (Continuing)
  - o Evaluate and integrate first production key agile security devices for the modeling and simulation and high performance computing users. (\$208K) (Continuing)
  - o Integrate Asynchronous Transfer Mode (ATM) multicast services for the modeling and simulation users. (\$300K)(4Qtr)
- \$2.873M Total

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications			
cost (in millions)		FY95	FY96		
Project E26 Leading Edge Pilot Information Technology		0	2.873		
(1) FY 1997 Plans:					
o Monitor candidate information system technologies and capabilities which are still in research and development for potential integration into the AITS-JPO Pilot Service portfolio (\$100K)(4Qtr)					
o Participate, initiate, expedite, or collaborate in Advanced Concepts Technology Demonstrations (ACTD's) in support of leading edge technology services. (\$100K)(4Qtr)					
o Evaluate available candidate AIT services versus user requirements and select promising technologies for pilot service (\$950K)(4Qtr)					
o Develop and coordinate plans and strategies for migration of Leading Edge Services into the DII utility. (\$1,050K)(4Qtr)					
o Migrate selected modeling and simulation services to the DII core utility. (\$450K)(4Qtr)					
o Integrate bandwidth on demand and end to end security pilot services. (\$379K)(4Qtr)					
\$3.029M Total					
Acquisition Strategy: Develop and implement statements of work and task orders to support FFRDC and SETA Contracts.					
B. Program Change Summary					
Previous President's Budget (FY 1996)		FY95	FY96		
Appropriated Value		0	2.971		
Adjustments to Appropriated Value		0	2.971		
Adjustments to Budget Year Since FY 1996 President's Budget		0	-.098		
Current Budget Submit/President's Budget		0	-.100		
Change Summary Explanation:		2.873	3.029		
Funding: FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation.					
Schedule: N/A					
Technical: N/A					
C. Other Program Funding Summary:					
O&M		FY95 0	FY96 0		
Page 8 of 30		Page 8 of 30			
		Total Cost Contig			

UNCLASSIFIED

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## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide/07

COST (in millions)	R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications			
	FY95	FY96	FY97	FY98
Project E26 Leading Edge Pilot Information Technology	0	2.873	3.029	3.139

## D. Schedule Profile

Fiscal Year actual and planned events by quarter.

1	2	3	4	1	2	3	4	1	2	3	4

SOW for SETA Support

N/A	X	X	X	X	X
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Page 9 of 30

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications/E26 Leading Edge Pilot Info Tech		
A. Project Cost Breakdown			
Project Cost Categories		FY95	FY96
Modeling & Simulation	0	2,873	3,029
Total	0	2,873	3,029
B. Budget Acquisition History and Planning Information: N/A			

Page10 of 30

R-1 Shopping List  
UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project E61 MILSATCOM and Defense Information Infrastructure (DII) Planning	0*	4.113	4.671	4.749	4.780	4.919	5.092	Contig	Contig	Contig
<p><b>A. Mission Description &amp; Budget Item Justification:</b> (U) *This project has been moved from PE0302019K to this PE starting in FY96. FY95 accomplishments and plans are described in PE0302019K. The rapid evolution of the global military environment is driving a major evolution of the DOD force structure and military operations requiring greater flexibility to meet the global warfighting requirements to rapidly project forces anywhere in the world. This project supports the planning and decision management required to provide responsive communications and information services to support the evolving military missions. The efforts support integrated DOD communications planning and investment strategy including all Military Satellite Communications (MILSATCOM) systems and commercial SATCOM capabilities, and the integrated communications and planning and decision management for the Defense Information Infrastructure (DII). The SATCOM investment strategy and acquisition roadmap provide guidance to the DOD Services, and Defense Agencies for the acquisition and upgrade of MILSATCOM systems and the cost effective acquisition of commercial SATCOM services. The Joint C4I Decision Support Center (JCDS) is developed and upgraded for the Joint Staff as the single DOD source of validated requirements. This work is essential to achieve the DISA goal of quality information services at an affordable cost through a deliberate decision management process.</p> <p>(U) <u>FY95 Plans:</u> Described in PE0302019K, Project E61.</p> <p>(U) <u>FY96 Plans:</u></p> <ul style="list-style-type: none"> <li>o JCDS: Continue upgrading the JCDS, developing advanced planning tools and databases. (\$690K) (Continuing)</li> <li>o C4I Simulation Integration: Migrate to a common family of models for training, planning and assessment. (\$950K) (Continuing)</li> <li>o C4I/DII Assessment: Provide C4I assessment support to the JWC, and C4I/DII assessment support to DISA and the operational community. (\$709K) (Continuing)</li> <li>o Joint Staff Support: Provide analysis and decision management support to the JS and warfighters in the realization of C4I/FTW. (\$519K) (Continuing)</li> <li>o Integrated Network Assessments: Assess military and commercial telecommunications alternatives to resolve programmatic issues. (\$866K) (Continuing)</li> <li>o C4I Model: Develop A DOD-wide C4I simulator to support mission test, training and operational exercises. (\$379K) (Continuing)</li> </ul> <p>\$4.113M Total</p> <p>(U) <u>FY97 Plans:</u></p> <ul style="list-style-type: none"> <li>o JCDS: Continue upgrading the JCDS, developing advanced planning tools and databases. (\$838K) (Continuing)</li> <li>o C4I Simulation Integration: Migrate to a common family of models for training, planning and assessment. (\$800K) (Continuing)</li> </ul>										

UNCLASSIFIED

**RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)**

DATE: March 1996

**APPROPRIATION/BUDGET ACTIVITY**

RDT&amp;E, Defense Wide/07

<b>APPROPRIATION/BUDGET ACTIVITY</b>		<b>R-1 ITEM NOMENCLATURE</b>								
		PE 0303126K/Long Haul Communications								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project E61 MILSATCOM and Defense Information Infrastructure (DII) Planning	0*	4.113	4.671	4.749	4.780	4.919	5.092	Contig	Contig	Contig

- o C4I/DII Assessment: Provide C4I assessment support to the JWC, and C4I/DII assessment support to DISA and the operational community. (\$963K) (Continuing)
  - o Joint Staff Support: Provide analysis and decision management support to the JS and warfighters in the realization of C4IFTW. (\$600K) (Continuing)
  - o Integrated Network Assessments: Assess military and commercial telecommunications alternatives to resolve programmatic issues. (\$1,050K) (Continuing)
  - o C4I Model: Develop a DOD-wide C4I simulator to support mission test, training and operational exercises. (\$420K) (Continuing)
- \$4.671M Total

**Acquisition Strategy:** SETA support contract (CPFF-LOE) was competitively awarded in (Q3) and consists of a base year and four option years. FFRDC support is procured sole source through the sponsoring Service (e.g., the Army for MITRE).

**B. Program Change Summary**

	FY95	FY96	FY97
Previous President's Budget (FY 1996)	0	4.279	4.383
Appropriated Value	0	4.279	
Adjustments to Appropriated Value	0	-.166	
Adjustments to Budget Year Since FY 1996 President's Budget	0	.288	
Current Budget Submit/President's Budget	0	4.113	4.671
Change Summary Explanation:			

**Funding:** FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation.

Schedule: N/A

Technical: N/A

\* In the previous President's Budget, funding for this project was in PE0302019K.

**C. Other Program Funding Summary**

	FY95	FY96	FY97	Total Cost
O&M	0	1.060	1.655	Contig

Page 12 of 30

UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

#### **D. Schedule Profile** Fiscal Year actual and planned events by quarter.

#### D. Schedule Profile

- Execute second option year of SETA support contract
- Execute FFRDC support (MIPRs)
- Execute third option year of SETA support contract
- Execute FFRDC support (MIPRs)

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**APPROPRIATION/BUDGET ACTIVITY**  
RDT&E, Defense Wide/07

Page 13 of 30

UNCLASSIFIED

77

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		
PE 0303126K/ Long Haul Communications/E61/MILSATCOM			
A. Project Cost Breakdown_ (\$000)	FY95	FY96	FY97
Project Cost Categories			
Modeling & Simulation	0	4,113	4,671
Total	0	4,113	4,671
B. Budget Acquisition History and Planning Information:	N/A		

Page 14 of 30

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project U16 Secure Video Teleconferencing System		0.717	0.646	0	0	0	0	0	0	2.645

A. Mission Description & Budget Item Justification: (U) This project, tasked by Presidential Directive NSDD-304, provides a cost effective, secure, reliable teleconferencing system that is responsive to the urgent operational requirements of the Executive Departments which are involved in the development and implementation of national security policy. This system is designed to emulate face-to-face conferences at the top executive levels for the conduct of highly sensitive business.

## (U) FY 1995 Plans:

- o Begin detailed engineering design, development and prototyping of the hub switch and associated node processors, based on high-level design completed in FY94. (\$486K) (4Qtr)
  - o Perform high-level systems engineering design which will facilitate transition from the Washington Area Wideband System (WAWS) transmission system to a state-of-the-art system. (\$231K)
- \$717M Total

## (U) FY 1996 Plans:

- o Continue detailed engineering design, development, and prototyping of the hub switch and associated node processors which was begun in FY95. (\$251K) (4Qtr)
  - o Perform detailed systems engineering design of alternative transmission system for the network, to include utilization of extra bandwidth. (\$220K) (4Qtr)
  - o Perform high-level systems engineering design of expanded secure inter-agency video network, including integration with appropriate external networks. (\$175K) (4Qtr)
- \$646M Total

## (U) FY 1997 Plans: This project has transitioned to O&amp;M appropriation.

Acquisition Strategy: Harris Corporation (competitive award in with 1 base year and 4 option years)

Page 15 of 30

UNCLASSIFIED

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				PE 0303126K/Long Haul Communications					
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project U16 Secure Video Teleconferencing System	0.717	0.646	0	0	0	0	0	0	2.645
<b>B. Program Change Summary:</b>	<u>FY1995</u>	<u>FY1996</u>	<u>FY1997</u>	<u>FY1998</u>	<u>FY1999</u>	<u>FY00</u>	<u>FY01</u>	<u>To Compl.</u>	<u>Total Cost</u>
Previous President's Budget (FY 1996)	.717	.711	.721						
Appropriated Value	.717	.711	.711						
Adjustments to Appropriated Value									
Adjustments to Budget Year Since FY 1996 President's Budget									
Current Budget Submit/President's Budget	.717	.646	.721						
Change Summary Explanation:									
Funding:: FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation.									
Schedule: N/A									
Technical: N/A									
<b>C. Other Program Funding Summary:</b>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>	<u>To Compl.</u>	<u>Total Cost</u>
Procurement Line P-1	.258	0	.250	.241	.271	.282	.293	Continuing	Continuing
O&M	.900	1.089	3.234	1.828	2.242	2.279	2.520	Continuing	Continuing
<b>D. Schedule Profile:</b>									
Fiscal Year actual and planned events by quarter.	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>	<u>FY97</u>	<u>FY97</u>
Contract Milestones	1	2	3	4	1	2	3	4	4
Contract DCA100-93-C-0146									
Contract Awarded (basic year)									
4 Options Years									

Page 16 of 30

UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications								
RDT&E, Defense Wide/07		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project U16 Secure Video Teleconferencing System		0.717	0.646	0	0	0	0	0	0	2.645
		<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>	<u>Cost of Complete</u>	<u>Total Cost</u>

Other Program Events

Engr. Design of new Hub Switch  
High Level Design of New  
Transmission System  
Prototype new Hub Switch  
High Level Design of Expanded  
Network

X  
X  
X  
X

Page 17 of 30

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications/U16/ SVTS	
A. Project Cost Breakdown (\$000)		
Project Cost Categories	<u>FY95</u>	<u>FY96</u>
a. Engineering and Technical Services	717	646
Total	717	646
B. Budget Acquisition History and Planning Information: N/A		

Page 18 of 30

UNCLASSIFIED

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/07				R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project 1H20 Defense Information System Network (DISN) Acquisition		1.380	2.131	7.558	0	0	0	0	0	13.307
<p><b>A. Mission Description &amp; Budget Item Justification:</b> DISN provides the Warfighters and the warfighting Commanders in Chief (CINCs), Joint Task Force (JTF) Commanders and Combined Task Force (CTF) Commanders with a robust C4I information transfer infrastructure. This infrastructure is the only subset of the Defense Information Infrastructure (DII) primarily providing transport. DISN will provide the Warfighters with U.S. Government controlled, secure, switched voice and data, imagery, video teleconferencing, and dedicated point-to-point connectivity. It directly supports national defense C4I decision support requirements, Corporate Information Management (CIM) functional businesses, and U.S. efforts to maintain the world-wide lead in defensive information warfare. This project supports the acquisition of the DISN Services for CONUS, Hawaii Information Transfer System (HITS), Deployable, Pacific and Europe.</p>										
<p><b>(U) FY 1995 Accomplishments</b></p> <ul style="list-style-type: none"> <li>o Provide engineering support for the development of the DISN CONUS acquisition support. (\$672K) (Completed)</li> <li>o Assess user requirements and provide engineering support for HITS. (\$689K) (Completed)</li> <li>o Provide engineering support in the development of the DISA Network/System Management requirements. (\$19K) (Completed)</li> </ul> <p>\$1.380M Total</p>										
<p><b>(U) FY 1996 Plans:</b></p> <ul style="list-style-type: none"> <li>o Provide acquisition technical support to CONUS (\$272K) (Continuing)</li> <li>o Provide Personal Communications Systems (PCS) support (\$172K) (Continuing)</li> <li>o Perform ITSDN Testing to Deployed (\$208K) (Continuing)</li> <li>o Develop Systems Design OCONUS (Pacific &amp; Europe) (\$479K) (Continuing)</li> <li>o Work with NSA/CONDOR for MSS security architecture (\$1,000K) (2nd Qtr)</li> </ul> <p>\$2.131M Total</p>										
<p><b>(U) FY 1997 Plans:</b></p> <ul style="list-style-type: none"> <li>o Acquire initial number of Handsets, Security Sleeves &amp; FORTEZZA Cards (\$2,907K)(Continuing)</li> <li>o Demonstrate the capability to support a Joint Task Force deployed anywhere in the world with high bandwidth communications over commercial transoceanic fiber optics cables (\$4,651K). (Continuing)</li> <li>ooConduct an Advanced concept Technology Demonstration to expand fiber optics links from existing commercial cable heads to newly established cable heads within several days on a shoreline where the JTF would be deployed.</li> <li>ooDevelop strategy to include DOD bandwidth surge capabilities in future commercial transoceanic cable laying projects.</li> <li>ooDevelop Concept of Operations for expanding transoceanic fiber based communication infrastructure inland where a high bandwidth infrastructure does not exist.</li> </ul> <p>\$7.558M Total</p>										

Page 19 of 30

UNCLASSIFIED

83

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
				PE 0303126K/Long Haul Communications								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete			
Project H20 Defense Information System Network (DISN) Acquisition		1.380	2.131	7.558	0	0	0	0	13.307			
<u>Acquisition Strategy:</u>												
FY95: FFRDC Support (MITRE), AT&T contract 3rd option year of 4 options (competitive contract)												
FY96: FFRDC Support (MITRE), JTIC Support												
FY97: TBD												
<u>B. Program Change Summary</u>												
Previous President's Budget (FY 1996)					FY96	FY97			<u>Total Cost</u>			
Appropriated Value		1.843		1.244	1.244	0			6,212			
Adjustments to Appropriated Value		1.843		1.244								
Adjustments to Budget Year Since FY 1996 President's Budget				.463	.887							
Current Budget Submit/President's Budget												
Change Summary Explanation:												
Funding: FY95 and FY96 adjustments due to below threshold reprogrammings.												
FY97 change due to program adjustment.												
Schedule: N/A												
Technical: N/A												
<u>C. Other Program Funding Summary</u>												
O&M					FY96	FY97			<u>Total Cost</u>			
DBOF		\$7,661		\$4,930		\$8,734						
		\$367,000		\$369,000		\$261,000						

Page 20 of 30

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications								
RDT&E, Defense Wide/07		COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project H20 Defense Information System Network (DISN) Acquisition			1.380	2.131	7.558	0	0	0	0	0	0	13.307
D. Schedule Profile												
(U) <u>EY 1995</u>												
MITRE Award												
SRI Award												
AT&T Option Award												
Northern Telecomm Award												
(U) <u>EY 1996</u>												
MITRE Award												
JITC Award												
NSA/CONDOR Award												
Global Fiber/TAC Interface Contract Awd												
(U) <u>EY 1997</u>												
NSA/CONDOR Award												
Global Fiber/TAC Interface Contract Awd												

Page 21 of 30

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996									
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE									
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications/H20 DISN Acquisition									
A. Project Cost Breakdown (\$000)		FY95 FY96 FY97									
Engineering and Technical Services		1,380 2,131 7,558									
Total		1,380 2,131 7,558									
B. Budget Acquisition History and Planning Information: N/A											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total FY95	Prior To FY95	Budget FY96	Budget FY97	Budget To Complete	Total Program	
Product Development Organizations	MITRE	01 Oct 94	2284	2284	0	1361	923	0	0	2284	
All other contract	MITRE/PR or Contract Mods	01 Oct 94	11023	11023	2238	19	1208	7558	0	11023	
Subtotal Contracts				2238	1380	2131	7558		13307		
In House Engineering & Technical Support											
Subtotal In-House											
TOTAL MANAGEMENT AND SUPPORT											

Page 22 of 30

86

R-1 Shopping List  
UNCLASSIFIED

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE										DATE: March 1996	
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications											
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	Contg	Contg	
Project H80 Defense Message System (DMS)		2.904	2.589	0*	0	0	0	0	Contg	Contg			
<p><b>A. Mission Description &amp; Budget Item Justification:</b> The purpose of this project is to provide system engineering to ensure that the Joint Staff (JS) and OSD (C3) validated messaging requirements are satisfied through the use of a COTS-based, multi-level secure messaging and directory service. The DMS provides the defense community with a more interoperable, cost effective messaging/directory service than that which is in place today. Current support is focused on developing secure messaging/directory/management services through requirements definition and refinement; target component Developmental, Initial and Final Operational Test and Evaluation (DT&amp;E, IOT&amp;E and FOT&amp;E); developing transitional interoperability requirements and components/services; technology insertion and service demonstrations; and influencing industry to include DMS features as part of their standard product offerings. * This project is funded in PE0303129K beginning in FY1997.</p> <p>(U) FY 1995 Accomplishments:</p> <ul style="list-style-type: none"> <li>o Performed engineering in support of the DMS-GOSIP acquisition to include messaging, directory, and service management services. (\$90K) (4 Qtr)</li> <li>o Supported topology design/development, network sizing, planning, and phasing for the DMS network. (\$300K) (Continuing)</li> <li>o Performed transition planning for both the unclassified but sensitive and classified DMS, including tactical users, special DMS components (e.g. MFD), and integration with MISSI. (\$1134K) (Cont.)</li> <li>o Evolved Proof-of-Concept (POC) network and DMS testbeds into Technology Insertion laboratory and demonstration capability. (\$380K) (Continuing)</li> <li>o Supported DMS Test and Evaluation (T&amp;E) effort including development of test criteria, review of test plans/procedures, and observation and analysis of POC test results. (\$350K) (4 Qtr)</li> <li>o Developed and promoted DOD/DMS requirements and positions on data communications protocol issues surfacing via military and civilian, national and international standards fora. (\$650K) (Cont.)</li> </ul> <p>\$2.904M Total</p> <p>(U) FY 1996 Plans:</p> <ul style="list-style-type: none"> <li>o Redesign DMS Target Architecture and Implementation Strategy (TAIS) to reflect changes in security products/solutions, additional definition of JTF and tactical user/environment, and program milestones. Work with DMS vendor to finalize initial topology, design, network sizing, planning, and phasing for the networks, including DISN transport. (\$716K) (Cont.)</li> <li>o Support DMS Test and Evaluation (T &amp; E) efforts including finalization of Compliency Definition, Site Acceptance Recommendations, and observation, analysis/evaluation of IOT&amp;E test execution. (\$225K) (Cont.)</li> <li>o Develop and promote DOD/DMS requirements and positions on data communications protocol issues via military and civilian, national and international standards fora. Feeds into this effort include participation in JWID, EC/EDL, and other integration/demonstration efforts. (\$1108K) (Cont.)</li> <li>o Develop user registration strategy/plan, finalize management capability prototyping. (\$540K) (Cont.)</li> </ul> <p>\$2.589M Total</p>													

Page 23 of 30

UNCLASSIFIED

87

UNCLASSIFIED

DATE: March 1996

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

(U) EY 1997 Plans: This project has been transferred to PE 0303129K.

B Program Change Summary

<p><b>Previous President's Budget (FY 1996)</b></p> <p>Appropriated Value</p> <p>Adjustments to Appropriated Value</p> <p>Adjustments to Budget Year Since FY 1996 President's Budget</p> <p>Current Budget Submit/President's Budget</p> <p><i>Change, Summary Explanation:</i></p>
--

**Funding:** FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation.

Schedule: N/A

<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
2.904	2.850	2.653
2.904	2.850	-.261
		-2.653
		0
		3,580
		2,004

## R-1 ITEM NOMENCLATURE PE 0303126K Long Haul Communications

Page 24 of 30

UNCLASSIFIED

88

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/07				R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications					
COST (in millions)									
		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Project H80 Defense Message System		2.904	2.589	0	0	0	0	0	Contig
C. Other Program Funding Summary									Total Cost
Procurement/PE 0303126K -- Defense Message System O&M/PE 0303126K -- Defense Message System									Total Cost
									20.000
									14.234
D. Schedule Profile				FY95	FY96	FY97			
(U) FY 1995				20.000	0	0			
Acquisition Milestones				10.000	0	0			
Pre-IPR (DISA Internal) (1 Qtr)									
IPR-MAISRC (MS II) (1 Qtr)									
DMS Contract Award (4 Qtr)									
Engineering Milestones									
ACP 133 Framework (2 Qtr)									
DMS Initial Fielding and Topology Plans (4 Qtr)									
JWD '95 (4 Qtr)									
(U) FY 1996									
Acquisition Milestones									
Pre-MAISRC (DISA Internal) (2 Qtr)									
MAISRC (MS III) (3 Qtr)									
Engineering Milestones									
TAIS Redesign (1 Qtr)									
API Standard (1 Qtr)									
EC/EDI Capabilities Report (2 Qtr)/Test Plan (3 Qtr)									
DMS Security Architecture (classified) (3 Qtr)									
Tactical Standardized Profile (draft) (3 Qtr)									

Page 25 of 30

UNCLASSIFIED

89

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE			
RDT&E, Defense Wide/07				PE 0303126K/Long Haul Communications/H80/DMS			
<b>A. Project Cost Breakdown (\$000)</b>				<b>FY95</b>		<b>FY96</b>	<b>FY97</b>
Project Cost Categories							
a. Engineering and Technical Services				2,904		2,589	
Total				2,904		2,589	
0				0		0	
<b>B. Budget Acquisition History and Planning Information</b>							
Contractor or Government Performing Activity	Contract Method/Type	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Budget FY95	Budget FY96	Budget To Complete
Product Development Organizations							
Booz-Allen	MIPR and/or PR	15 Nov 94	3697	3697	834	1022	0
All other contracts					330	0	0
Support and Management Organizations							
MITRE	MIPR	01 Oct 94	13005	13005	1740	1567	0
All Other Contracts					0	0	0
None.							
In House Engineering & Technical Support							
TOTAL MANAGEMENT AND SUPPORT							

Page 26 of 30

90

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07		PE 0303126K/Long Haul Communications								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project W90 White House Situation Support Staff		0.410	0.445	0.467	0.464	0.459	0.473	0.488	Contig	Contig

## A. Mission Description &amp; Budget Item Justification:

This project ensures that full level crisis management capabilities are provided to the President, Vice President, the National Security Advisor and his staff. This effort emphasizes information exchange and display and procedures. This project is part of the National Security Information and Situation Management System (NSI & SMS) effort.

## (U) FY 1995 Accomplishments:

o Begin research and development into Decision Support Systems for the White House Situation Room. (\$410K) (Cont)

## (U) FY 1996 Plans:

o Continue development of Decision Support Systems for the White House Situation Room. (\$445K) (Cont)

## (U) FY 1997 Plans:

o Continue development of Decision Support Systems for the White House Situation Room. (\$467K) (Cont)

Page 27 of 30

UNCLASSIFIED

91

UNCLASSIFIED

DATE: March 1996

## R&D&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY						
RDT&E, Defense Wide/07						
R-1 ITEM NOMENCLATURE						
PE 0303126K/Long Haul Communications						
COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00
Project W90 White House Situation Support Staff (WHSSS)	.410	.445	.467	.464	.459	.473
						.488
						Contig
						Cost of Complete
						Total Cost

**R-1 ITEM NOMENCLATURE** PE 0303126K Long Haul Communications

COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	Contig
Project W90 White House Situation Support Staff (WHSSS)		.410	.445	.467	.464	.459	.473	.488			

## B. Program Change Summary

Previous President's Budget (FY 1996)	
Appropriated Value	
Adjustments to Budget Year Since FY 19	
Adjustments to Appropriated Value	
Current Budget Submit/President's Budget	
Change Summary Explanation:	

Funding: FY96 reduction due to Congressional adjustment to Defense-wide Investment Appropriation.  
FY97 reduction due to revised inflation rates

Schedule: N/A  
Technical: N/A

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Procurement Line P-1	FY95		FY96		FY97		To Complete	Contg	Total Cost
	1.454	2.260	2.260	0	4.653	2.806			
O&M							0	0	4.660

Page 28 of 30

UNCLASSIFIED

92

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE PE 0303126K/ Long Haul Communications								
RDT&E, Defense Wide/07		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Cost (in millions)										
Project W90 White House Situation Support Staff (WHSSSS)		.410	.445	.467	.464	.459	.473	.488	Contg	Contg

## D. Schedule Profile

(U) FY 1995

Engineering Milestones:

Begin research and development into Decision Support Systems for the White House Situation Room. (2nd qtr FY95)

(U) FY 1996

T&amp;E Milestones:

Continue development of Decision Support Systems for the White House Situation Room. (3rd qtr FY96)

(U) FY 1997

Contract Milestones:

Contract/Study to be delivered (3rd qtr FY97)

Page 29 of 30

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE PE 0303126K/Long Haul Communications/W90/WHSSS	
A. Project Cost Breakdown (\$000)	<u>FY95</u>	<u>FY96</u>
RDT&E, Defense Wide/07	410	445
Project Cost Categories		
a. Engineering and Technical Services		467
B. Budget Acquisition History and Planning Information:N/A		

Page 30 of 30

UNCLASSIFIED

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

## APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
		Support of the National Communication System (NCS)/P.E. 0303127K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost to Complete	Total Cost
Total 0303127K Cost		4.229	3.733	3.910	4.570	4.571	4.534	5.394	Cont.	Cont.
Enhanced Satellite Capability/N092		.980	.499	.479	.519	.421	.421	1.383	Cont.	Cont.
Interoperability/N088		1.319	1.544	1.507	1.584	1.640	1.603	1.501	Cont.	Cont.
Network Security/N094		.495	.499	.503	.521	.525	.525	.525	Cont.	Cont.
Advanced Intelligent Network/N091		1.435	1.191	1.421	1.946	1.985	1.985	1.985	Cont.	Cont.

## A. Mission Description and Budget Item Justification

This program element supports Executive Order 12472 of 3 April 1984 which assigns the NCS the mission of assisting the President, the National Security Council, the Office of Science and Technology Policy, and the Office of Management and Budget, in exercising their wartime and non-wartime telecommunications functions and responsibilities, and coordinating the planning for, and provisioning of, National Security and Emergency Preparedness (NSEP) telecommunications for the federal government under all circumstances. To attain this objective, there are several National Security Decision Directives which provide additional guidance to the NCS which require that initiatives be developed that will improve the survivability and interoperability of the commercial telecommunications systems that support national security and emergency preparedness requirements, enhance the survivability and durability of U.S. commercial satellites, and provide communications support for Government agencies which have responsibilities to carry out their essential functions in any emergency. Additionally, this program element will support programs which will help to ensure that the evolving National Information Infrastructure will meet the needs of government NSEEP users. Enhanced Satellite Capability explores developing satellite technologies and applications which include experiment preparation and terminal modification to experiment with NASA's Advanced Communications Technology Satellite (ACTS), preparing secure voice experiments over American Mobile Satellite Corporation Mobile Satellite (MSAT), and the analysis of the newly proposed low earth systems. Interoperability supports the Federal Telecommunications Standards Program, and ensures interoperability among emerging government communications systems. Network Security supports the Public Switched Network (PSN) in mitigating hacker threats. Advanced Intelligent Network employs newly developed processing capabilities to tailor the extensive telecommunications resources of the PSN. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

Page 1 of 14

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE										
RDT&E, Defense Wide/07				Support of the National Communication System (NCS)/P.E. 0303127K										
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost to Complete	Total Cost				
Enhanced Satellite Capability (ESC)/N092		.980	.499	.479	.519	.421	.421	1.383	Cont.	Cont.				

**A. Mission Description & Budget Item Justification:**

This project will provide greatly enhanced and cost-effective telecommunications for all operational environments with the incorporation of new satellite communication technologies. ESC will acquire knowledge of evolving technologies; support development of National Security Telecommunications Advisory Committee (NSTAC) initiatives; evaluate new commercial satellite capabilities; assure that industry is aware of NS/EP requirements and stress the importance of these features in new systems; develop concepts and architectures for acquiring advanced satellite communications services and performing test and evaluation of acquired capabilities. Regarding acquisition strategy, work will continue under existing contract vehicles.

**FY1995 Accomplishments:**

- o Analyze and demonstrate applicability and usefulness of selected Enhanced Satellite Capability (ESC) technologies against NS/EP needs (Funding - \$670K;
- Completion date - Sep 95)
- o Perform Asynchronous Transfer Mode (ATM), Integrated Services Digital Network (ISDN), and Synchronous Optical Network (SONET) satellite experiments (Funding - \$310K;
- Completion date - June 95) \$ 980M Total

**FY1996 Plans:**

- o Conduct experiments utilizing an ACTS High Data Rate (HDR) terminal to test SONET, Broadband ISDN (BISDN), and ATM technologies in the KA (spectrum of band width) spectrum (Funding - \$174K; Completion date - Continuing)
- o Research potential of developing satellite technologies and systems: low earth orbit (LEO) and geostationary and plan experimentation (Funding - \$151K;
- Completion date - Continuing)
- o Identify and determine candidate NS/EP National Information Infrastructure (NII) requirements (priority access, secure voice) that can be served via a satellite platform and experimentation (Funding - \$174K; Completion date - Continuing) \$ 499M Total

**FY1997 Plans:**

- o Analyze and document results of NCS ACTS High Data Rate Experiments (Funding - \$59K; Completion date - Jul 97)
- o Perform experimentation of NS/EP NII requirements and summarize results. Emphasis of experimentation will be targeted toward evolving Mobile Satellite Systems and influencing their design to include NS/EP desired features (Funding - \$250K; Completion date - Continuing)
- o Perform analysis of inventory and evaluate industry activities for the potential of meeting NS/EP requirements (Funding - \$170K; Completion date - Continuing) \$ 479M Total

Page 2 of 14

UNCLASSIFIED

96

UNCLASSIFIED

DATE: March 1996

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

## B. Program Change Summary

## Previous President's Budget (FY 1996)

### Appropriated Value

## Adjustments to Appropriated Value

### Adjustments to Budget Year Since F

## Current President's Budget

110

## Change Summary Explanation

Funding: FY96 reduction due to co

FY97 reduction due to re

Schedule: N/A

Technical: N/A

**C. Other Program Fu**

102

FY95 - 3rd quarter: Demonstration and analysis of the American Mobile Satellite Communication (AMSC) mobile satellite system

1st quarter:	Demonstration and analysis of the OBBCOM mobile satellite system
3rd quarter:	Demonstration and analysis of the OBBCOM mobile satellite system

4th quarter Assess the AMSC experiment results and evaluate the potential of the system to support the NSC/EP mission.

4th quarter: Assess the RBCOMM experiment results and connect to NSIDC's main Arctic海冰情勢. Assess the Arctic海冰情勢 application to the NSIDC Mission.

EF96 - Analysis of developing satellite systems and associated mobile satellite services to INSIDE users.

Page 3 of 14

UNCLASSIFIED

97

UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE: March 1996</b>	
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> Support of the National Communications System (NCS)/0303127K/Enhanced Satellite Capability (N092)	
<b>A. Project Cost Breakdown (\$000)</b>		<b>FY1995</b>	
Project Cost Categories		<u>FY1996</u>	<u>FY1997</u>
Engineering & Technical Service			479
Total	980	499	479
	980	499	479
<b>B. Budget Acquisition History and Planning Information (\$000)</b>		<b>Budget To Complete</b>	
<b>Performing Organizations</b>		<u>Budget</u>	<u>Budget To Complete</u>
Support & Management Organization	<u>FY1995</u>	179	Total Program
Test & Evaluation Organization	276	138	Cont.
Total Project	704	320	Cont.
	980	499	Cont.
		479	

Page 4 of 14

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE							
		Support of the National Communication System (NCS)/P.E. 0303127K							
COST (in millions)		FY95	FY96						
		FY97	FY98						
		FY99	FY00						
		FY01	FY02						
		Cost to Complete	Total Cost						
		Cont.	Cont.						
Interoperability/N088		1.319	1.544	1.507	1.584	1.640	1.603	1.501	Cont.
<b>A. Mission Description &amp; Budget Item Justification:</b>		<p>This project analyzes new telecommunications technologies and their effects on interoperability of Government communications and conducts related technical evaluations and standards development. Supports the Federal Telecommunications Standards Program. Ensures interoperability among emerging government communication systems, including information systems, by providing the required analyses to the NCS Member Organizations and other government agencies through the development of initial specification and correlation of standards for specific types of communication and information systems; the design of initial automated methods for application of standards to systems; the refinement and evaluation of program objectives in evolving technology environment. Regarding acquisition strategy, new reimbursable orders will be used.</p>							
<b>FY1995 Accomplishments:</b>		<ul style="list-style-type: none"> <li>o Develop technology and government standards to promote interoperability with emphasis on:           <ul style="list-style-type: none"> <li>o land mobile radio encryption (Funding - \$236K; Completion date - Sep 95)</li> <li>o cellular encryption (Funding - \$238K; Completion date - Sep 95)</li> </ul> </li> <li>o Further develop technology standards to ensure interoperability with emphasis on restoration techniques, teleconferencing and NS/EP requirements for wireless/cellular communications (Funding - \$845K; Completion date - Aug 95) \$1.319M Total</li> </ul>							
<b>FY 1996 Plans:</b>		<ul style="list-style-type: none"> <li>o Develop techniques and analyses to implement national security and emergency preparedness (NS/EP) requirements in emerging standards for wide-band networks and wireless services of the National Information Infrastructure (Funding - \$694K; Completion date - Continuing)</li> <li>o Develop strategies and detailed specifications for methods of congestion control in asynchronous transfer mode (ATM) networks, to help ensure reliable NS/EP communications (Funding - \$400K; Completion date - Continuing)</li> <li>o Develop analysis methods for determining NS/EP quality requirements for multi-media communications over the National Information Infrastructure (Funding - \$450K; Completion date - Continuing) \$1.544M Total</li> </ul>							
<b>FY1997 Plans:</b>		<ul style="list-style-type: none"> <li>o Develop additional and updated techniques for reliable and secure NS/EP communications in wide-band and wireless networks (Funding - \$627K; Completion date - Continuing)</li> <li>o Develop additional and updated methods and proposed standards for flow controlling asynchronous transfer mode congestion to help ensure reliable NS/EP communications (Funding - \$415K; Completion date - Continuing)</li> <li>o Develop analyses, methods, and standards for assessing quality of multi-media NS/EP communications (Funding - \$465K; Completion date - Continuing) \$1.507M Total</li> </ul>							

Page 5 of 14

UNCLASSIFIED

99

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY							R-1 ITEM NOMENCLATURE		
RDT&E, Defense Wide/07							Support of the National Communication System (NCS)/P.E. 0303127K		
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost to Complete
Interoperability/N088		1.319	1.544	1.507	1.584	1.640	1.603	1.501	Total Cost Cont.
B. Program Change Summary									
Previous President's Budget (FY 1996)		<u>FY1995</u> 1.319	<u>FY1996</u> 1.573		<u>FY1997</u> 1.632				
Appropriated Value		1.319	1.573						
Adjustment to Appropriated Value		0	-.029						
Adjustment to Budget Year Since FY 96 President's Budget									
Current President's Budget		1.319	1.544						
Change Summary Explanation									
Funding: FY96 reduction due to congressional adjustments to Defense-wide Investment appropriation									
FY97 reduction due to revised fiscal guidance.									
Schedule: N/A									
Technical: N/A									
C. Other Program Funding Summary									
O&M	<u>FY1995</u> 3.044	<u>FY1996</u> 2.740	<u>FY1997</u> 3.402	<u>FY1998</u> 3.414	<u>FY1999</u> 3.701	<u>FY2000</u> 3.701	<u>To</u> 3.701	<u>Compl</u> Cont.	<u>Total</u> Cost Cont.
D. Schedule Profile									
FY95 - 3rd quarter: Receive analysis from a non-profit academic organization on strategies developed for cell loss probability high-speed digital networks.									
FY96 - 3rd quarter: Receive report from Institute for Telecommunications Science on algorithm developed to quantify quality of multi-media transmission, from a user's perspective.									
FY97 - 2nd quarter: Receive report from National Institute of Standards and Technology on rapid (< 1 second) restore of multi-megabit switched digital circuits.									

Page 6 of 14

UNCLASSIFIED

100

UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE: March 1996</b>	
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> Support of the National Communications System (NCS)/0303127K/Interoperability (N088)	
<b>A. Project Cost Breakdown</b> (\$000)		<b>FY1995</b>	<b>FY1996</b>
Project Cost Categories			<b>FY1997</b>
Engineering & Technical Service		1,319	1,544
Total Project		1,319	1,544
<b>B. Budget Acquisition History and Planning Information</b> (\$000)			
Performing Organizations			
Test & Evaluation Organization	Budget <b>FY1995</b> 1,181	Budget <b>FY1996</b> 1,231	Budget To <b>Complete</b> Cont.
Product Development Organization	138	313	1,209
Total Project	1,319	1,544	298
			Total Program Cont.
			Cont.
			Cont.
			Cont.

Page 7 of 14

101  
**R-1 Shopping List**  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/07				Support of the National Communication System (NCS)/P.E. 0303127K						
COST (in millions)		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	Cost to Complete	Total Cost
Network Security/N094		.495	.499	.503	.521	.525	.525	.525	Cont.	Cont.
<b>A. Mission Description &amp; Budget Item Justification</b>										
<p>This project was initiated to mitigate the hacker threat posed to NS/EP telecommunications carried via the Public Switched Network (PSN). The research gained from this project will be used to develop a consistent framework of guidelines that will be useful to government and industry in assuring that critical software supporting and/or controlling telecommunications switches can be trusted to perform as required in support of the PSN. Regarding acquisition strategy, new reimbursable orders will be used.</p>										
<p><b>FY1995 Accomplishment:</b></p> <ul style="list-style-type: none"> <li>o Continue joint Office of the Manager National Communications System (OMNCS) and National Institute for Standards and Technology (NIST) efforts to assure security of software and databases associated with the PSN (Funding - \$492K; Completion date - Continuing) <b>\$495M Total</b></li> </ul>										
<p><b>FY1996 Plans:</b></p> <ul style="list-style-type: none"> <li>o Develop software tools useful in identifying and eliminating security vulnerabilities from large computer programs such as those used in communications systems (Funding - \$299K; Completion date - Continuing)</li> <li>o Evaluate security tools and techniques relevant to communication systems and provide guidelines for protecting communications systems from computer intruders (Funding - \$200K; Completion date - Continuing) <b>\$499M Total</b></li> </ul>										
<p><b>FY1997 Plans:</b></p> <ul style="list-style-type: none"> <li>o Develop additional tools to identify and eliminate security vulnerabilities in large computer programs such as those used in communications systems. Update previously developed tools for application to emerging computer systems (Funding - \$301K; Completion date - Continuing)</li> <li>o Evaluate additional security tools and techniques relevant to communications systems and provide updated guidelines (Funding - \$202K; Completion date - Continuing) <b>\$503M Total</b></li> </ul>										
<b>B. Program Change Summary</b>										
		<u>FY1995</u>	<u>FY1996</u>	<u>FY1997</u>						
Previous President's Budget (FY 1996)		.495	.499	.503						
Appropriated Value		.495	.499							
Adjustments to Appropriated Value		0	0							
Adjustments to Budget Year Since FY 96 President's Budget										
Current Budget Submit/President's Budget		.495	.499	0						
				.503						

Page 8 of 14

UNCLASSIFIED

102

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/07				Support of the National Communication System (NCS)/P.E. 0303127K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost to Complete	Total Cost
Network Security/N094		.495	.499	.503	.521	.525	.525	.525	Cont.	Cont.
Change Summary Explanation										
Funding:	N/A									
Schedule:	N/A									
Technical:	N/A									
C. Other Program Funding Summary										
O&M	<u>FY1995</u> 1.164	<u>FY1996</u> 1.300	<u>FY1997</u> 1.300	<u>FY1998</u> 1.300	<u>FY1999</u> 2.718	<u>FY2000</u> 5.617	<u>FY2001</u> 6.371	To Compl 6.371	Total Cost Cont.	Cont.
D. Schedule Profile										
FY95 - 3rd quarter: Federal Information Processing Standard on Telecommunications Security										
FY96 - 4th quarter: Beta test version of "Decomposition Slicing" tool for analyzing effects of maintenance changes in large computer programs										
FY97 - 4th quarter: Evaluations of security features in switches performed by the Telecommunications Security Analysis Center										

Page 9 of 14

UNCLASSIFIED

103

UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE:</b> March 1996	
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense Wide/07		<b>R-1 ITEM NOMENCLATURE</b> Support of the National Communications System (NCS)/0303127K/Network Security (N094)	
A. Project Cost Breakdown	(\$000)	<u>FY1995</u>	<u>FY1996</u>
Project Cost Categories			<u>FY1997</u>
Engineering & Technical Service	495	499	503
B. Budget Acquisition History and Planning Information:	N/A		

Page 10 of 14

R-1 Shopping List  
UNCLASSIFIED

104

UNCLASSIFIED

## RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

### APPROPRIATION/BUDGET ACTIVITY

RDT&E, Defense Wide/07

COST (in millions)	FY1995	FY1996	FY1997	R-1 ITEM NOMENCLATURE			
				FY1999	FY2000	FY2001	Total Cost
Advanced Intelligent Network/N091	1.435	1.191	1.421	1.946	1.985	1.985	Cont.

#### A. Mission Description & Budget Item Justification

This project is required to employ newly developed processing capabilities to tailor the extensive telecommunications resources of the existing Public Switched Network (PSN), which includes the Local Exchange Carrier (LEC) and Inter Exchange Carrier (IEC) Networks, thus enhancing connectivity and survivability of services for essential government users during periods of emergency. Advanced Intelligent Network (AIN) is an evolving PSN capability consisting of signaling systems, switches, computer processing, databases and transmission media. This research will result in the utilization of these components, in a customized set of network services that can be flexibly, rapidly and cost effectively configured by customers upon demand on an as needed basis. Regarding acquisition strategy, work will continue under current contract vehicles.

##### FY1995 Accomplishments:

- o Conduct studies to determine reliability and survivability of the configuration of AIN capabilities, previously selected, and the networks supporting them (Funding - \$415K, Completion date - May 95)
- o Assess interoperability of AIN with other systems such as FTS 2000 and the Defense Information Systems Network, and potential interface and assess AIN NII opportunities for NS/EP (Funding - \$310K, Completion date - Sep 95)
- o Demonstrate AIN capabilities and their applications to NS/EP telecommunications and other Government networks, through a laboratory trial of the AIN candidate configuration selected and related technology (Funding - \$710K, Completion date - Aug 95) \$1.435M Total FY1996 Plans:

- o Evaluate AIN industry developments and capabilities for potential applications to NS/EP telecommunications (Funding - \$150K; Completion date - Continuing)
- o Determine AIN relationship to evolving National Communications System (NCS) requirements for advanced intelligent capabilities and data services, define applications for implementation into OMNICS initiatives (Funding - \$350K; Completion date - Continuing)
- o Research AIN interoperability with emerging technologies such as Integrated Services Digital Network (ISDN), Asynchronous Transfer Mode (ATM) and Personal Communications (PCS), for potential integrated voice, data, wireline and wireless services (Funding - \$350K, Completion date - Continuing)
- o Analyze AIN Bellcore generic requirements for potential NS/EP considerations and influence AIN implementation as the technology becomes standardized (Funding - \$170K; Completion date - Continuing)
- o Research mediated access FCC issues for further development of AIN switches and elements (Funding - \$171K; Completion date - Continuing) \$1.191M Total

Page 11 of 14

UNCLASSIFIED

105

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996																							
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE Support of the National Communication System (NCS)/P.E. 0303127K																										
RDT&E, Defense Wide/07		COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost to Complete	Total Cost																		
Advanced Intelligent Network/N091		1.435	1.191	1.421	1.946	1.985	1.985	1.985	1.985	1.985	Cont.	Cont.																		
<b>FY1997 Plans:</b>																														
<ul style="list-style-type: none"> <li>o Research and develop AIN candidate configurations of potential voice and data AIN services in support of NS/EP emerging requirements and those necessary to support emergency operations on the NII (Funding - \$350K; Completion date - Continuing)</li> <li>o Plan for and demonstrate proof of concept strategies for offering AIN services and demonstrate interoperability across the Public Switched Network (PSN) across multiple service providers and with other technologies such as ISDN, ATM and PCS (Funding - \$460K; Completion date - Continuing)</li> <li>o Assess AIN survivability, reliability, interoperability and security concerns for NS/EP voice and data applications and influence industry to act on NS/EP concerns (Funding - \$300K; Completion date - Continuing)</li> <li>o Follow-on to FY96 initiatives to plan demonstrations that remain current with planned industry capabilities and issues, and influence the design of AIN services to be responsive to the needs of the NS/EP community (Funding - \$311K; Completion date - Continuing) \$1.421M Total</li> </ul>																														
<b>B. Program Change Summary</b>																														
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 33.33%;">FY1995</th> <th style="text-align: center; width: 33.33%;">FY1996</th> <th style="text-align: center; width: 33.33%;">FY1997</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Previous President's Budget (FY 1996)</td> <td style="text-align: center;">1.435</td> <td style="text-align: center;">1.393</td> </tr> <tr> <td style="text-align: center;">Appropriated Value</td> <td style="text-align: center;">1.435</td> <td style="text-align: center;">1.393</td> </tr> <tr> <td style="text-align: center;">Adjustments to Appropriated Value</td> <td style="text-align: center;">0</td> <td style="text-align: center;">-202</td> </tr> <tr> <td style="text-align: center;">Adjustments to Budget Year Since FY 96 President's Budget</td> <td style="text-align: center;">1.435</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: center;">Current President's Budget</td> <td style="text-align: center;">1.191</td> <td style="text-align: center;">1.421</td> </tr> </tbody> </table>													FY1995	FY1996	FY1997	Previous President's Budget (FY 1996)	1.435	1.393	Appropriated Value	1.435	1.393	Adjustments to Appropriated Value	0	-202	Adjustments to Budget Year Since FY 96 President's Budget	1.435	0	Current President's Budget	1.191	1.421
FY1995	FY1996	FY1997																												
Previous President's Budget (FY 1996)	1.435	1.393																												
Appropriated Value	1.435	1.393																												
Adjustments to Appropriated Value	0	-202																												
Adjustments to Budget Year Since FY 96 President's Budget	1.435	0																												
Current President's Budget	1.191	1.421																												
<b>Change Summary Explanation</b>																														
<p>Funding: FY96 reduction due to congressional adjustments to Defense-wide Investment appropriations</p> <p>Schedule: N/A</p> <p>Technical: N/A</p> <p>C. Other Program Funding Summary: N/A</p>																														

106

Page 12 of 14

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07		Support of the National Communication System (NCS)/P.E. 0303127K	
COST (in millions)		FY95	FY96
		FY97	FY98
Advanced Intelligent Network/N091	1.435	1.191	1.421
		1.946	1.985
		FY99	FY00
	<td>FY01</td> <td>Cost to Complete</td>	FY01	Cost to Complete
	<td>1.985</td> <td>Cont.</td>	1.985	Cont.
	<td></td> <td>Total Cost</td>		Total Cost
D. Schedule Profile			

FY95 - 1st/2nd quarter: AIN and Intelligent ISDN Demonstrations  
FY96 - 4th quarter: Contract Award - 1 October 1995  
AIN Multimedia Applications for NS/EP  
FY97 - 2nd quarter: Develop AIN Open Network Architecture and Demonstrations

Page 13 of 14

107

UNCLASSIFIED

UNCLASSIFIED

<b>RDT&amp;E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)</b>		<b>DATE: March 1996</b>	
<b>APPROPRIATION/BUDGET ACTIVITY</b>		<b>R-1 ITEM NOMENCLATURE</b>	
RDT&E, Defense Wide/07		Support of the National Communications System (NCS)/0303127K/Advanced Intelligent Network/N091	
A. Project Cost Breakdown	(\$000)	FY1995	FY1996
Project Cost Categories			
Engineering & Technical Service		1,435	1,191
Total Project		1,435	1,191
B. Budget Acquisition History and Planning Information	(\$000)	Budget FY1995	Budget FY1997
Performing Organizations			
Support & Management Organization		487	497
Product Development Organization		704	924
Total Project		1,191	1,421
		Budget to Complete	Budget to Complete
		Cont.	Cont.
		Cont.	Cont.

Page 14 of 14

R-1 Shopping List  
UNCLASSIFIED

108

UNCLASSIFIED

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>		<b>DATE: March 1996</b>							
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>RDT&amp;E, Defense Wide/07</b>									
<b>R-1 ITEM NOMENCLATURE</b> <b>Defense Message System/PE 0303129K</b>									
cost (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project H80 Defense Message System (DMS)	0*	0*	2.532	2.674	2.745	2.845	2.938	Contg	Contg
<p>A. Mission Description &amp; Budget Item Justification. *This project is not a new start. Prior to FY 1997, it was funded in PE0303126K. The purpose of this project is to provide system engineering to ensure that JS and OSD (C3I) validated messaging requirements are satisfied through the use of a COTS-based, multi-level secure messaging and directory service. The DMS provides the defense community with a more interoperable, cost effective messaging/directory service than that which is in place today. Current support is focused on developing secure messaging/directory/management services through requirements definition and refinement; target component Development, Initial and Final Operational Test and Evaluation (DT&amp;E, IOT&amp;E and FOT&amp;E); developing transitional interoperability requirements and components/services; technology insertion and service demonstrations; and influencing industry to include DMS features as part of their standard product offerings. This program element is under budget activity 07 because it supports operational systems development.</p>									
<p>(U) <u>FY 1995 Accomplishments:</u>            Work is performed in PE0303126K.</p>									
<p>(U) <u>FY 1996 Accomplishments:</u>            Work is performed in PE0303126K.</p>									
<p>(U) <u>FY 1997 Plans:</u>            o Perform transition planning for Post IOC sensitive but unclassified and classified DMS users, including cross program integration (GCCS, EC/EDI, etc.) and tactical. (\$816K) (Cont.)            o Support the Post IOC test and evaluation effort through JWID and Technical Insertion Network scenario development, execution, &amp; results analysis and finalization of revisions to Functional Security &amp; Performance (FSP) criteria and compliance definition. (\$426K) (Cont.)            o Perform system lifecycle/evolution engineering to account for growth, policy and requirements changes, MISSI and commercial product changes, etc. (\$446K) (Cont.)            o Develop and promote DOD/DMS requirements and positions on data communications protocol issues via military and civilian, national and international standards fora. (\$844K)(Cont.)  <b>\$2.532M Total</b></p>									

Page 1 of 3

UNCLASSIFIED

109

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

**APPROPRIATION/BUDGET ACTIVITY**

RDT&amp;E, Defense Wide/07

COST (in millions)	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Project H80 Defense Message System (DMS)	0*	0*	2,532	2,674	2,745	2,845	2,938	Contig	Contig

**B. Program Change Summary**

	FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Previous President's Budget (FY 1996)	*	*	*	*	*	*	*	Contig	Contig
Appropriated Value	*	*	*	*	*	*	*	Contig	Contig
Adjustments to Appropriated Value	*	*	*	*	*	*	*	Contig	Contig
Adjustments to Budget Year Since FY 1996 President's Budget	*	*	*	*	*	*	*	Contig	Contig
Current Budget Submit/President's Budget	*	*	*	*	*	*	*	Contig	Contig
Change Summary Explanation:	*	*	*	*	*	*	*	Contig	Contig

**Funding:**

\*FY95 - FY96 : Work is performed in PE0303126K.

FY97: Changes are due to revised inflation rates.

**C. Other Program Funding Summary**

	FY96	FY97	FY98	FY99	FY00	FY01
O&M Proc	20,700 30,100	34,497 41,397	34,206 44,685	36,111 44,569	21,148 29,924	14,403 20,734

**D. Schedule Profile**

- (U) FY 1995  
 (U) FY 1996  
 (U) FY 1997  
 Engineering Milestones: Finalized Tactical Standardized Profile (4 Qtr)

Page 2 of 3

UNCLASSIFIED

110

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		R-1 ITEM NOMENCLATURE Defense Message System/PE 0303129K		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY	RDT&E, Defense Wide/07	FY95	FY96	FY97	
A. Project Cost Breakdown					
Project Cost Categories (\$000K)					
a. Engineering and Technical Services		0	0	0	
Total		0	0	0	
B. Budget Acquisition History and Planning Information					
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Budget To Complete
All Other Contracts					
Product Development Organizations					
USAISC	MIPR	21 Dec 95	0	0	360
AT&T	CPAF	20 Dec 95	0	0	470.5
Other Contracts		20 Dec 95	0	0	382
Support and Management Organizations					
MITRE	Procurement Work Directive (PWD)		0	0	1319.5
In House Engineering & Technical Support	Subtotal Contracts		0	0	2,532

Page 3 of 3

UNCLASSIFIED

111

UNCLASSIFIED

DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

## APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

## R-1 ITEM NOMENCLATURE

Minimum Essential Emergency Communications Network (MEECN)/0303131K

COST (in millions)	FY95	FY96	FY97	R-1 ITEM NOMENCLATURE			
				FY98	FY99	FY00	FY01
Total Program Element (PE) Cost	3.237	2.620	2.311	2.482	2.612	3.030	3.462
Strategic C3 Support/T70	3.237	2.361	2.075	2.227	2.340	2.716	3.103
Contingency Planning for the President/T71	0*	.259	.236	.255	.272	.314	.359

## A. Mission Description and Budget Item Justification:

This program focuses on ensuring the implementation of national policy requiring nuclear Command, Control and Communications (C3) systems; support positive control of nuclear forces, and connectivity between National Command Authorities (NCA) and strategic and other appropriate forces to assure adequate command and control is maintained throughout all phases of conflict and instability. This support also provides informed decision-making linkage between the NCA and the Commanders-in-Chief (CINC) of the Unified and Specified Commands. DISA performs this task as Nuclear C3 (NC3) Systems Engineer. It specifically ensures a balanced, integrated capability is maintained. This project provides direct long range and specialized support to ASD(C3) and Joint Staff (JS) for determining which programs should be supported and/or canceled, as well as supports fail safe and risk reduction. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\*In FY95, this project is funded in Program Element 0302016K. It is not a new start.

Page 1 of 7

UNCLASSIFIED

112

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: March 1996			
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
RDT&E, Defense Wide/07		Minimum Essential Emergency Communications Network (MEECN) (0303131K)			
COST (in millions)		FY95	FY96	FY97	FY98
Strategic C3 Support/T70		3.237	2.361	2.075	2.227
					2.340
					2.716
					3.103
					Contig
					Total Cost

**A. Mission Description & Budget Item Justification:**

This project has four elements: strategic planning, operational assessments, communications plans, and engineering. Together, these elements perform all of the functions of the Nuclear C3 system's engineer, and all of the NCA and Nuclear C3 support for ASD(C3). The first element is Strategic Planning which is done for ASD(C3) and the Joint Staff. These are the long range plans and vulnerability assessments done to ensure NCA and Nuclear C3 are always adequate under all conditions of stress or war. It evaluates the operational capability for the Nuclear Command and Control System (NC3S), i.e., strengths and weaknesses and determines the best investment strategy to evolve the current NC3S to achieve the desired capability. Threats—from terrorist activities—to regional—to global are considered. Fiscal constraints and other top level guidance are also significant factors influencing these plans. The second element is Operational Assessments of the fielded C3 systems and weapons platforms. This assessment is the sole means for positive verification of the communications plans, procedures, op-orders, training, equipment and system configuration from end-to-end. It includes both strategic, theater-to-national level C3 interfaces into the Nuclear Command and Control and Communications (NC3) systems. The tests are performed in an operational setting with Joint Chiefs of Staff (JCS), CINC and nuclear forces worldwide. The third element of this project is to maximize the operational readiness of the National Military Command System (NMCS) by developing communications plans, procedures, Operations Orders and Battle Staff certification, and keeping these plans and procedures accurate as policy and forces change. Under this element, Battle Staff proficiency is verified. The fourth element of this project provides engineering guidance and participates in all nuclear C3 system life cycle systems engineering related functions. It includes mission and functional technical requirements definition; alternative designs and solutions; program policy and guidance; subsystem and network integration; modeling; test and evaluation; development, deployment, installation, and problem isolation. This element resolves design, engineering, performance, and interoperability issues for critical, strategic systems.

**(U) FY 1995 Accomplishments:**

- o Continue Strategic NC3 T&E/Non-Strategic Nuclear Forces (NSNF) C3 Operations assessment (Sep 95; \$1,140K).
  - o Nuclear C3 Assessment (Sep 95; \$1,435K).
  - o Communications Plans (Sep 95; \$402K).
  - o ASD(C3) Special Studies: Develop implementation of Nuclear Posture Review Architecture (Sep 95; \$260K).

\$3.237M Total

Page 2 of 7

113

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996					
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07				Minimum Essential Emergency Communications Network (MEECN)/0303131K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete			
Strategic C3 Support/T70		3.237	2.361	2.075	2.227	2.340	2.716	3.103	Contig			
(U) FY 1996 Plans:		<ul style="list-style-type: none"> <li>o Continue reduced Nuclear C3 Operational Assessments/Positive Command and Control (Sep 96; \$1,238K).</li> <li>o Continue selected Communications plans updating and certifications (Sep 96; \$433K).</li> <li>o Commence identifying NC3 communication requirement for Proliferation (Sep 96; \$529K).</li> <li>o Commence validating new architecture implementing Nuclear Posture Review (NPR) recommendations (Sep 96; \$161K).</li> </ul>										
(U) FY 1997 Plans:		<ul style="list-style-type: none"> <li>o Continue reduced Nuclear C3 Operational Assessments/Positive Command and Control (Sep 97; \$1,204K).</li> <li>o Continue selected Communications plans updating and certifications (Sep 97; \$350K).</li> <li>o Complete NC3 communication requirement for Proliferation (Sep 97; \$450K).</li> <li>o Validate new architecture to implement Commercial-Off-The-Shelf (COTS) equipment into NC3 (Sep 97; \$71K).</li> </ul>										
(U) FY 1997 Total:		\$2.075M Total										
(U) FY 1998 Total:		\$2.361M Total										
(U) FY 1999 Total:		\$2.340M Total										
(U) FY 2000 Total:		\$2.716M Total										
(U) FY 2001 Total:		\$3.103M Total										
(U) FY 2002 Total:		\$3.971M Total										
(U) FY 2003 Total:		\$4.047M Total										
(U) FY 2004 Total:		\$4.047M Total										
(U) FY 2005 Total:		\$4.314M Total										
(U) FY 2006 Total:		\$4.104M Total										
(U) FY 2007 Total:		\$4.075M Total										
(U) FY 2008 Total:		\$4.075M Total										
(U) FY 2009 Total:		\$4.122M Total										
(U) FY 2010 Total:		\$4.122M Total										
(U) FY 2011 Total:		\$4.122M Total										
(U) FY 2012 Total:		\$4.122M Total										
(U) FY 2013 Total:		\$4.122M Total										
(U) FY 2014 Total:		\$4.122M Total										
(U) FY 2015 Total:		\$4.122M Total										
(U) FY 2016 Total:		\$4.122M Total										
(U) FY 2017 Total:		\$4.122M Total										
(U) FY 2018 Total:		\$4.122M Total										
(U) FY 2019 Total:		\$4.122M Total										
(U) FY 2020 Total:		\$4.122M Total										
(U) FY 2021 Total:		\$4.122M Total										
(U) FY 2022 Total:		\$4.122M Total										
(U) FY 2023 Total:		\$4.122M Total										
(U) FY 2024 Total:		\$4.122M Total										
(U) FY 2025 Total:		\$4.122M Total										
(U) FY 2026 Total:		\$4.122M Total										
(U) FY 2027 Total:		\$4.122M Total										
(U) FY 2028 Total:		\$4.122M Total										
(U) FY 2029 Total:		\$4.122M Total										
(U) FY 2030 Total:		\$4.122M Total										
(U) FY 2031 Total:		\$4.122M Total										
(U) FY 2032 Total:		\$4.122M Total										
(U) FY 2033 Total:		\$4.122M Total										
(U) FY 2034 Total:		\$4.122M Total										
(U) FY 2035 Total:		\$4.122M Total										
(U) FY 2036 Total:		\$4.122M Total										
(U) FY 2037 Total:		\$4.122M Total										
(U) FY 2038 Total:		\$4.122M Total										
(U) FY 2039 Total:		\$4.122M Total										
(U) FY 2040 Total:		\$4.122M Total										
(U) FY 2041 Total:		\$4.122M Total										
(U) FY 2042 Total:		\$4.122M Total										
(U) FY 2043 Total:		\$4.122M Total										
(U) FY 2044 Total:		\$4.122M Total										
(U) FY 2045 Total:		\$4.122M Total										
(U) FY 2046 Total:		\$4.122M Total										
(U) FY 2047 Total:		\$4.122M Total										
(U) FY 2048 Total:		\$4.122M Total										
(U) FY 2049 Total:		\$4.122M Total										
(U) FY 2050 Total:		\$4.122M Total										
(U) FY 2051 Total:		\$4.122M Total										
(U) FY 2052 Total:		\$4.122M Total										
(U) FY 2053 Total:		\$4.122M Total										
(U) FY 2054 Total:		\$4.122M Total										
(U) FY 2055 Total:		\$4.122M Total										
(U) FY 2056 Total:		\$4.122M Total										
(U) FY 2057 Total:		\$4.122M Total										
(U) FY 2058 Total:		\$4.122M Total										
(U) FY 2059 Total:		\$4.122M Total										
(U) FY 2060 Total:		\$4.122M Total										
(U) FY 2061 Total:		\$4.122M Total										
(U) FY 2062 Total:		\$4.122M Total										
(U) FY 2063 Total:		\$4.122M Total										
(U) FY 2064 Total:		\$4.122M Total										
(U) FY 2065 Total:		\$4.122M Total										
(U) FY 2066 Total:		\$4.122M Total										
(U) FY 2067 Total:		\$4.122M Total										
(U) FY 2068 Total:		\$4.122M Total										
(U) FY 2069 Total:		\$4.122M Total										
(U) FY 2070 Total:		\$4.122M Total										
(U) FY 2071 Total:		\$4.122M Total										
(U) FY 2072 Total:		\$4.122M Total										
(U) FY 2073 Total:		\$4.122M Total										
(U) FY 2074 Total:		\$4.122M Total										
(U) FY 2075 Total:		\$4.122M Total										
(U) FY 2076 Total:		\$4.122M Total										
(U) FY 2077 Total:		\$4.122M Total										
(U) FY 2078 Total:		\$4.122M Total										
(U) FY 2079 Total:		\$4.122M Total										
(U) FY 2080 Total:		\$4.122M Total										
(U) FY 2081 Total:		\$4.122M Total										
(U) FY 2082 Total:		\$4.122M Total										
(U) FY 2083 Total:		\$4.122M Total										
(U) FY 2084 Total:		\$4.122M										

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DATE: March 1996

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				
RDT&E, Defense Wide/07					Minimum Essential Emergency Communications Network (MEECN)/0303131K				
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Strategic C3 Support/T70		3.237	2.361	2.075	2.227	2.340	2.716	3.103	Contg
D. Schedule Profile									Contg

Events cited below occur in each fiscal year (1995-1997).

1 Qtr - Strategic Mobile Command Center Operation Order completed for Joint Staff.

1 Qtr - Strategic Communications Assessment (Polo Hat) completed for Joint Staff

1 Qtr - Joint Staff/CINIC Staff Assistance Exercise (CINCSPACE, CINCSTRAT, National Airborne Operation Center).

1 Qtr - ASD(C3) "Nuclear C3 Review" Report.

1 Qtr - Non-Strategic Communications Exercise completed for Joint Staff.

1 Qtr - Final Nuclear C3 System Description completed for Joint Staff.

2 Qtr - Nuclear C3 Systems Engineer Annual Report to ASD/C3I.

2 Qtr - Joint Staff/CINIC Staff Assistance Exercise (CINCPAC).

2 Qtr - Strategic Communications Assessment (Polo Hat) completed for Joint Staff

2 Qtr - Non-Strategic Communications Evaluation CINCEUR.

3 Qtr - Complete Fiber Communications System (FCS).

3 Qtr - Strategic Communications Assessment (Polo Hat) completed for Joint Staff.

3 Qtr - Emergency Communications Procedures CJCS Emergency Action Procedures (EAP) Vol 7 completed for Joint Staff.

4 Qtr - Complete Early Pentagon Connectivity Modernization.

4 Qtr - NMCS/ DOD Emergency Communications Plan completed for Joint Staff.

Page 4 of 7

UNCLASSIFIED

115

UNCLASSIFIED

**R-1 Shopping List** **UNCLASSIFIED**

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996																														
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE																																	
RDT&E, Defense Wide/07				Minimum Essential Emergency Communications Network (MEECN) 0303131K																																	
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost																											
Contingency Planning for the President (CPP)/T71		*0	.259	.236	.255	.272	.314	.359	Contig	Contig																											
<p>A. <u>Mission Description &amp; Budget Item Justification:</u>            *This project was transferred from Program Element 0302016K. All aspects of this project are classified and require special access. Therefore, information on this project is not contained in this document but can be obtained upon request.</p> <p>B. <u>Program Change Summary</u></p> <table> <thead> <tr> <th>FY95</th> <th>FY96</th> <th>FY97</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY1996)</td> <td>.222</td> <td>.208</td> </tr> <tr> <td>Appropriated Value</td> <td>.222</td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td>+.037</td> <td></td> </tr> <tr> <td>Adjustments to Budget Year since FY96 President's Budget</td> <td></td> <td></td> </tr> <tr> <td>Current Budget Submit/President's Budget</td> <td></td> <td></td> </tr> <tr> <td>Transferred from P.E. 0302016K</td> <td>.259</td> <td></td> </tr> <tr> <td>Change Summary Explanation:</td> <td></td> <td></td> </tr> <tr> <td>FY96 and FY97 increases due to program adjustments.</td> <td></td> <td></td> </tr> </tbody> </table> <p>C. <u>Other Program Funding Summary</u></p> <p>Related RDT&amp;E, PE 0302016K in FY95.</p> <p>D. Schedule Profile</p> <p>Information can be provided upon request.</p>											FY95	FY96	FY97	Previous President's Budget (FY1996)	.222	.208	Appropriated Value	.222		Adjustments to Appropriated Value	+.037		Adjustments to Budget Year since FY96 President's Budget			Current Budget Submit/President's Budget			Transferred from P.E. 0302016K	.259		Change Summary Explanation:			FY96 and FY97 increases due to program adjustments.		
FY95	FY96	FY97																																			
Previous President's Budget (FY1996)	.222	.208																																			
Appropriated Value	.222																																				
Adjustments to Appropriated Value	+.037																																				
Adjustments to Budget Year since FY96 President's Budget																																					
Current Budget Submit/President's Budget																																					
Transferred from P.E. 0302016K	.259																																				
Change Summary Explanation:																																					
FY96 and FY97 increases due to program adjustments.																																					

Page 6 of 7

UNCLASSIFIED

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE	
RDT&E, Defense Wide/07		Minimum Essential Emergency Communications Network (MEECN)/0303131K/Contingency Planning for the President (T71)	
A. Project Cost Breakdown		FY95	FY96
Project Cost Categories			FY97
a. Systems Engineering		0	259
TOTAL		0	259
B. Budget Acquisition History and Planning Information			
Support and Management Organizations			
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Project Office EAC
			Prior to FY95
			Budget FY95
			Budget FY96
			Budget FY97
Miscellaneous			0
Government Furnished Property: N/A			259
TOTAL PROJECT			236
		Budget To Complete	
		Total Program	

Page 7 of 7

R-1 Shopping List  
UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				C4I for the Warrior/0303149K					
cost (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Joint C3I Surveillance & Recon./D8A		0	0	2.907	2.884	2.861	2.837	2.814	Contig

A. Mission Description & Budget Item Justification: C4I for the Warrior (C4IFTW) is a new initiative that promotes joint and coalition C4I Interoperability. This effort supports the Joint Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Battle Center and will assimilate demonstrations and experiments of large scale engineering required for architecture development of Joint warfighting systems integration which leverage CJISR. The Center provides comprehensive joint warfighting capability that maintains a competitive military advantage dependent on the ability to effectively field evolutionary systems and equipment which assure joint operational capability dominance by quickly organizing and testing innovative CJISR concepts. The Center will ensure that as new CJISR concepts surface, these concepts will be developed to share all CJISR information with precision force generators which will engender a powerful environment for joint operational innovations. Industry driven technology advancements dictate rapid insertion into the DOD CJISR infrastructure to maintain this competitive advantage. The Center will support experiments in mission, mission support and technology with actual battle scenarios and assessment specific parameters, utilizing the latest technology insertion and applications to provide a consistently improving state of readiness for the joint warfighter. Furthermore, the Center will reduce overlap in modeling and simulation efforts among the Military Services. This program element is under Budget Activity 07 because it supports operational systems development.

(U) FY 1995 Accomplishments: N/A

(U) FY 1996 Accomplishments: N/A

(U) FY 1997 Plans:

- o Strategic Plan for global interoperability for US military forces during deployment and resolving C4I interoperability issues (\$2,907K)

Page 1 of 3

UNCLASSIFIED

119

UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: March 1996

## APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, Defense Wide/07

APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
		C4I for the Warrior/0303149K								
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost
Joint C3I Surveillance and Recon./D8A		0	0	2.907	2.884	2.861	2.837	2.814	Contig	Contig

## B. Program Change Summary

Previous President's Budget (FY 1996)  
 Appropriated Value  
 Adjustments to Appropriated Value  
 Adjustments to Budget Year Since FY 1996 President's Budget  
 Current Budget Submit/President's Budget  
 Change Summary Explanation:

Funding: FY97 change due to new start of PE 0303149K.

Schedule: N/A  
 Technical: N/A

## C. Other Program Funding Summary

FY95		FY96		FY97		Total Cost
O&M	Procurement	O&M	Procurement	O&M	Procurement	Contig
0	0	0	0	11.657M	4.814M	Contig

## D. Schedule Profile

- (U) FY 1995 Not applicable
- (U) FY 1996 Not applicable
- (U) FY 1997
  - o 1st Quarter - Execute contract support

Page 2 of 3

UNCLASSIFIED

120

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996							
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE							
RDT&E, Defense Wide/07		C4I for the Warrior/0303149K/Joint C3I Surveillance & Recon./D8A							
A. Project Cost Breakdown (\$000)									
Systems Engineering		FY95 0	FY96 0						
B. Budget Acquisition History and Planning Information									
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Prior to FY95	Budget FY95	Budget FY96	Budget FY97	Total
All Other Contracts					0	0	0	2,907	Contig
Subtotal Contracts									
In House Engineering & Technical Support: N/A									
TOTAL PROJECT									

Page 3 of 3

UNCLASSIFIED

121

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE: March 1996		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide/07				Joint Spectrum Center/0303153K					
cost (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete
Joint Spectrum Center PE 0303153K	*	4.712	*	*	*	*	*	*	Contg
									Total Cost

A. Mission Description & Budget Item Justification: (U) The Joint Spectrum Center (JSC) serves as the DOD focal point for electromagnetic (EM) spectrum management matters in support of the Unified Commands, Military Departments, and Defense Agencies in planning, acquisition, training, and operations. Specifically, the Center designs, develops, and maintains DOD automated spectrum management systems, evaluation tools, and databases employed by the Services, DOD Agencies, and Unified Commands. The JSC databases are the prime sources of information for DOD use of the EM spectrum. The JSC provides advice and assistance to DOD activities to ensure development and acquisition of electromagnetically compatible systems and for the effective deployment of these systems in military operations. This Center is the focal point for spectrum related support, Electromagnetic Environmental Effects (E<sup>3</sup>), and EM interference resolution assistance to operational units including deployable support to CINC Joint Task Forces. Its mission is integral to other vital activities such as Information Warfare (IW), Command and Control (C<sup>3</sup>) Protect and other defensive C<sup>3</sup> warfare activities as directed by the Joint Staff. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

NOTE: FY95 RDT&E funding was budgeted within the Air Force under PE 0303144F, Electromagnetic Compatibility Analysis Center (ECAC) which was renamed the Joint Spectrum Center effective 28 Sep 94. DOD transferred funds and Executive Agent responsibility from the Air Force to DISA for the JSC and, effective FY96, PE 0303153K for the JSC was established under DISA. However, FY 1997 and outyear funds will be transferred back to the Air Force effective FY97.

(U) FY 1995 Plans: EFFORT ACCOMPLISHED UNDER PE 0303144F  
 (U) FY 1996 Plans: \$ in Millions

- o Continuous improvement of the Frequency Resource Record System and other DOD EMC databases will be accomplished in accordance with requirements of the CINCs and Services, including some hardware improvements to replace aging equipment. \$3.212M (Continuing)
- o Limited support for management of DOD E<sup>3</sup> Program including development of a strategic plan, conduct conferences, coordinate EMC, Ordnance and Personnel Hazards efforts, and development of models and simulations to support E<sup>3</sup> analyses. \$1.5M (Continuing)

\$4.712M Total

(U) FY 1997 Plans: EFFORT TO BE ACCOMPLISHED UNDER PE 0303144F

Acquisition Strategy: Full and open competitive procurement of the contractual support for the Center.

Page 1 of 4

122

UNCLASSIFIED

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE: March 1996															
APPROPRIATION/BUDGET ACTIVITY										R-1 ITEM NOMENCLATURE															
RDT&E, Defense Wide/07										Joint Spectrum Center/0303153K															
cost (in millions)		FY95		FY96		FY97		FY98		FY99		FY00		FY01		Cost of Complete	Total Cost								
Joint Spectrum Center PE 0303153K	*	*		4.712	*	*		*	*	*		*	*	*	Contig	Contig									
B. Program Change Summary										FY95		FY96		FY97											
Previous President's Budget (FY 1996)							*					4.859		4.883											
Appropriated Value												4.859													
Adjustments to Appropriated Value																									
Adjustments to Budget Year Since FY 1996 President's Budget																									
Current Budget Submit/President's Budget																									
Change Summary Explanation:																									
Funding:																									
Schedule: N/A																									
Technical: N/A																									
C. Other Program Funding Summary										FY95		FY96		FY97		FY98		FY99		FY00		FY01		To Compl	Total Cost
O&M	*							*		*		*		*	*	*	*	*	*	*	*	*	contig	contig	

\*NOTE: FY95 RDT&E funding was budgeted within the Air Force under PE 0303144F, Electromagnetic Compatibility Analysis Center (ECAC) which was renamed the Joint Spectrum Center effective 28 Sep 94. Funds and Executive Agent responsibility were transferred from the Air Force to DISA effective FY96, (PE 0303153K); however, they will be transferred back to the Air Force effective FY97.

Page 2 of 4

UNCLASSIFIED

123

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE: March 1996	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE						
RDT&E, Defense Wide/07					Joint Spectrum Center/0303153K						
COST (in millions)		FY95	FY96	FY97	FY98	FY99	FY00	FY01	Cost of Complete	Total Cost	Contig
Joint Spectrum Center PE 0303153K	*	4.712	*	*	*	*	*	*	*	1997	4
D. Schedule Profile		1995	1996	1997	1998	1999	2000	2001	Cost of Complete	Total Cost	Contig
Contract Milestones		1	2	3	4	1	2	3	4	1	2
Improve Frequency Resource Record System and other DoD EMC data bases						X	X	X	X		
Electromagnetic Environmental Effects Analyses Support						X	X	X	X		

\*NOTE: FY95 RDT&E funding was budgeted within the Air Force under PE 0303144F, Electromagnetic Compatibility Analysis Center (ECAC) which was renamed the Joint Spectrum Center effective 28 Sep 94. Funds and Executive Agent responsibility were transferred from the Air Force to DISA effective FY96, (PE 0303153K); however, they will be transferred back to the Air Force effective FY97.

Page 3 of 4

UNCLASSIFIED

124

UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE: March 1996								
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE								
RDT&E, Defense Wide/07		Joint Spectrum Center/0303153K								
A. Project Cost Breakdown (\$ in Thousands)										
Contractor Engineering Support		FY95								
Total Project Cost		4,712								
		4,712								
B. Budget Acquisition History and Planning Information										
Contractor or Government Performing or Activity	Contract Method/Type Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Budget FY95	Budget FY96	Budget FY97	Budget To Complete	Budget To Contig	Total Program Contig
IT Research Institute	C/CPAF/ MIPR	17May95				4,712				
All Other Contracts				Total Contracts			4,712			
Test and Evaluation Organizations							4,712			

Page 4 of 4

R-1 Shopping List  
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